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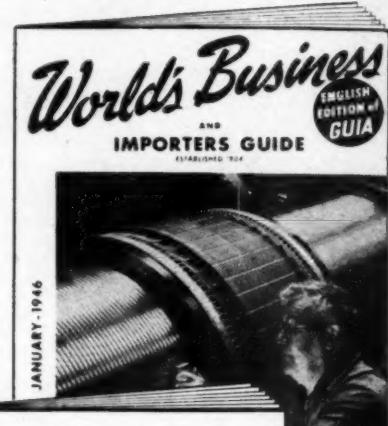
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## Plain Talk

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EDLEWILD AIRPORT is no mere babe in the woods. Time will prove that.

However, it may be confidently expected that stumbling blocks will crop up now and then. They have appeared in the past; they will again in the future.

Certain methods and plans of the many components of Idlewild may be altered to fit new situations as they arise. The administration of air-minded Mayor Fiorello H. LaGuardia, which spent 12 years in office and chalked up an enviable record, is retiring. The new administration may have different ideas on how Idlewild should be completed. On top of this are rumors to the effect that an authority may be set up to take over the new airport.

A clue is contained in Joseph D. McGoldrick's article, *Idlewild . . . Answer to Doubting Thomas*, in which he points out that "it will be eight or ten years . . . before the airport will be finally completed."

The point to remember is that Mayor LaGuardia has taken the bull by the horns and brought the city face-to-face with the fact that the present airport is wholly inadequate, and that if it wishes to retain its strategic place on the world air map, it must be prepared to offer the proper facilities.

The express purpose of this special Idlewild Number is to confront business and civic leaders throughout the United States—yes, even the world—with the implications of the Air Age.

Publisher

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**No. 6**

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**DECEMBER**  
**1945**

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**THE COVER—The Statue of Liberty symbolizing the breath and spirit of freedom and democracy as the air fills with globe-girdling traffic.**

**JOHN F. BUDD, Editor and Publisher**

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## STARTING LINE

Beginning with V-J Day and continuing through the plant clearance and inventory period, the Beech plant has lacked the sounds of production.

Now the sounds of rivet guns, presses, drop hammers, and compressors again are heard. The production of peacetime airplanes has begun at one end of the plant while the war surplus clearance goes on at the other.

The modest beginning of a production line shown above is like the first sign of Spring. It forecasts the future. Soon there will be several production lines operating, with new peacetime

BEECHCRAFTS leaving them for all parts of the world, to contribute to the reconstruction efforts of all nations.

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C O R P O R A T I O N  
WICHITA, KANSAS, U. S. A.



# No Burden to the Taxpayer

By FIORELLO H. LAGUARDIA  
Mayor, City of New York

[This article appeared originally in the Sunday Magazine Section of *The New York Times* under the title, *Finest Airport in the World*. It is reprinted in this issue with the consent of *The New York Times* and Mayor La Guardia.]

WE are building a great airport at Idlewild in New York City—the finest airport in the world, at a cost of \$71,000,000—not in the hope that some day there will be need for it, but because commercial aviation will need it as soon as it is completed. As a matter of fact, operations will start before it is finished. In five years after the war, I estimate that there will be 900 schedules to all parts of the world—arrivals and departures—a day. Yet that is only part of the ultimate planned capacity.

All long-distance domestic services and all lines to foreign countries will use the new airport. Short-distance flights—a radius as far as Chicago—will be handled at the present Municipal Airport at North Beach, which will continue to operate at full capacity—about 400 schedules a day. It is conservatively estimated that national passenger and cargo flying will increase 300 percent as soon as planes and personnel are available. I believe that regular, scheduled flights to foreign countries will be 50 times greater than they were before the war. Sounds big, doesn't it? Watch and see.

Right now there are being planned several schedules a day to London, Paris, Vienna, Prague, Mexico City and points in Central and South America, Cuba, the Caribbean ports; and daily trips to Scandinavia, Russia, Spain, Portugal, Italy, Poland, Switzerland, Turkey, the Balkans, Greece, Egypt, Africa, and the Far East via Africa and Europe.

The airport is a gigantic enterprise. It will bring millions of dollars monthly in commerce, business and traffic to New York. When in full operation 30,000 passengers will go through its gates daily; thousands of pounds of mail and express and tons of freight—incoming and outgoing—will be handled. Forty thousand men and women will be permanently employed in management, operation,

maintenance, traffic, transportation, sales, food and other airport activities.

Let me tell something about the magnitude of the airport. It embraces 4,495 acres. Over 1,100 buildings have been demolished or removed. The city is acquiring the last 347 acres of the land. The \$9,000,000 purchase money received by the city from the Navy for Floyd Bennett Field will more than pay for the land.

The administration building will contain 1,300,000 square feet of floor area and the two promenade decks each will be 6,500 feet long. The building is of classic design, of great dignity and beauty, yet not an inch of space is wasted. It will cost about \$10,000,000.

Seven loading decks, part of the administration building, each 700 feet long, will branch out from the circular structure. Accommodations for loading and unloading a maximum of 90 planes at a time are planned. The administration building, loading decks, apron and parking space will cover 360 acres. Filling, grading, planting, drainage, field lighting, utilities, runways, taxi strips, aprons and interior roads will cost about \$14,676,000.

Proper approaches to the airport have been planned. Travel-time by car or bus to midtown Manhattan is estimated at 26 minutes. All five Borough Presidents have arranged the

traffic pattern of their respective boroughs so as to fit the approaches to the airport. The Long Island Railroad station at Howard Beach is right on its boundary and intermural bus services will be established for passengers using that service.

The airport is a costly undertaking. Yet it will be one of the best investments the city ever made. It will pay for itself; the taxpayers will not have to pay for it. I stake my reputation for prudent administration of public affairs on that.

When the airport is completed interest and amortization will require about \$2,600,000 a year. Joseph McGoldrick, the able Comptroller of our city, assures me that the income will be forthcoming along with the growth of the airport; in other words, as the money is spent. He is watching the income-expenditure policy like a hawk. The hangars will be rented on an actual cost basis, interest and amortization; again, no burden to the taxpayer.

The airport will be completed in three stages: The first, in the latter part of this year. It will have three main runways and a temporary administration building. This temporary building is no shack, but attractive in design and commodious. It is 700 feet long. It will cost \$500,000. We expect to use it until September, 1947.

The second stage should be finished in the early part of 1947. The airport will then have its six principal runways, complete taxistrip system and the permanent administration building. The third stage will be on its way,

according to present plans by 1950, when the supplementary runways will be available. These will develop in accordance with the growth of traffic and improvement in the "landing" art.

The runway problem of airfields is quite a live subject just now. Along with great improvement in the landing equipment of planes, constant perfecting of navigation instruments and greater safety in weather landing, much greater capacity, it is expected, can be obtained from airports. Constant study is being given to this subject. Our Government, commercial airlines and technicians will soon have the answer.

When completed the airport will have 12 runways, from 7,000 to 10,000 feet in length and 200 feet wide, with 50 feet of shoulder additional. The six first runways are so laid out as to fit the pattern which will, on actual knowledge and proved experience, finally be selected.

All the construction, planning and operations of this great job are the responsibility, and under the supervision, of Commissioner John McKenzie of the City Department of Marine and Aviation, an experienced career official, one of the ablest and yet most modest of men with whom I have ever worked. The consulting engineer in charge of design and construction is Jay Downer. He is putting his very life into his job. It will be a great monument. The airport's traffic connection with existing parkways and highways has been planned under the supervision of Commis-

ON THE DOTTED LINE  
—Mayor LaGuardia (right) and J. A. Herlihy, United Air Lines' vice president in charge of operations, signing Idlewild leases. Behind LaGuardia is Comptroller McGoldrick.



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graph by Benrus.

This superb watch was developed by

airline engineers and Benrus watch ex-  
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in fifth seconds. Dial has 3 small circular  
sections. One gives lapsed minutes up to  
30. One is the usual second hand. The  
third gives lapsed time of trip in hours  
and half hours.

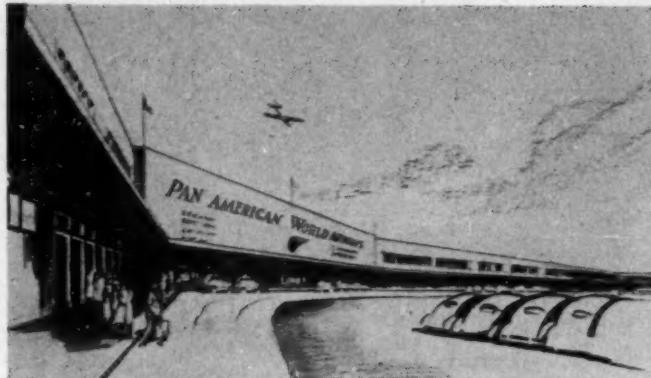
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AS IT WILL LOOK TOMORROW — Artist's conception of Pan American World Airways' international terminal to be constructed at Idlewild. It will take up the eastern end of the 102-gate arcade.

sioner Robert Moses. He knows his job. Delano & Aldrich are the architects of the administration building. I like their work.

The Board of Estimate and the City Council have caught the contagion of this enterprise and have given splendid and enthusiastic cooperation.

New York City again leads. It is a better city than it was yesterday. It will be a better city tomorrow than it is today.

### Four Oil Companies To Sell Fuel at Idlewild

The withdrawal of the Gulf Oil Company's bid for the gasoline and oil concessions at Idlewild Airport, in favor of a non-profit agreement which will enable all oil companies to sell their products to the airlines, has ended the two-year contest between Gulf Oil and a group of four companies: Texas Company, Socony-Vacuum Oil Company, Colonial Beacon Oil Company and Shell Oil Company.

Both bids had been deadlocked at \$3,750,000, when Gulf Oil recalled its claim, on condition that it be allowed equal selling rights with the group taking the concession. The four companies will build a distribution system at the field to be operated through a non-profit company, with all oil companies privileged to use the system. Gulf Oil, which has a large storage depot adjoining the airport, intends to exercise that privilege.

Another condition of Gulf Oil's withdrawal is that the sale of gasoline and oil to transient planes (those not belonging to regular operating airlines) and to automobiles be let under a separate contract. Therefore, the four companies will pay the city \$3,750,000 for the big concession, less the amount that is bid for the smaller contract, which will be let by public auction by John McKenzie, Commissioner of Marine and Aviation. This contract requires a minimum bid of \$250,000, and the

successful bidder must erect service stations at specified points at a cost not to exceed \$100,000.

The lease for the big aviation fuel concession will require the four companies to build a piping and distribution system that is estimated to cost \$4,000,000. Costs of the distribution system will be amortized by means of the "through-put" charge that will be the same for all companies using it, so that the four companies will be reimbursed in time. The installations under both contracts will become the property of the city, and the terms of both leases will be for 10 years beyond the date when the airport is completed, which is expected to be July 1, 1949, with some payment for the interim period to be negotiated.

### Air Express Rates Again Cut On Newspapers, Periodicals

Further rate reductions, amounting to more than 10 percent, for air expressing newspapers, magazines, and other periodicals to and from 16 large cities in this country became effective December 15.

The additional reduction will apply only to shipments of 100 pounds or more. Cities involved are on the routes of American Airlines and Chicago and Southern Air Lines, the announcement made by the Air Express Division of the Railway Express Agency stated.

Illustrating the reductions with an air shipment of 100 pounds from New Orleans to Chicago, the agency pointed out that the shipment now costs \$15.75, as compared to the old rate of \$18.90. The other 14 cities affected in addition to New Orleans and Chicago are: Detroit, St. Louis, El Dorado, Little Rock, Evansville, Fort Wayne, Indianapolis, Greenwood, Jackson, Houston, Memphis, Toledo, Shreveport and Peoria.

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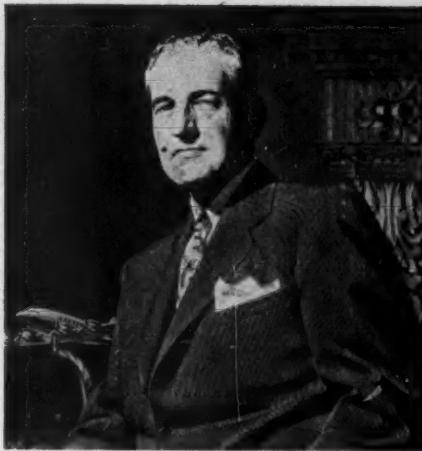
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# Key To Mass Air Travel

By M. F. REDFERN

Secretary, AIR TRANSPORT ASSOCIATION  
OF AMERICA



IDEWILD holds the key to some of the things the airlines are doing to usher in the era of mass air travel. This giant airport is but one improvement the airlines will make use of in handling thousands of passengers where they formerly handled hundreds. But its chief benefits will result from lessons it may set in increasing the ground efficiency of operations.

Off the ground the airlines have proved their efficiency. On the ground there remain many corners to be cut, much to be gained. Idlewild can and no doubt will cut many of the ground operations corners. It will be a huge testing field for developing and testing mass air traffic.

Both the airlines and aircraft manufacturers are working on new systems of approach to make mass traffic feasible. The designers of the larger transport planes soon to be in operation have considered various elements required to quicken ground efficiency and have incorporated some of these ideas in the construction of aircraft.

Idlewild offers the chance to test these new time-saving methods of landings and take-offs, of loadings and unloadings, of increasing dependability of service and on-time performance, as well as expediting the ticketing of passengers and their transportation to and from airports.

Technological advances in radio, radar and electronics will be put to the severest tests, and their application to mass traffic will be demonstrated. Improvements in station facilities, such as loading decks designed to speed the enplaning and deplaning passengers, turntables and new methods on the taxiways, are

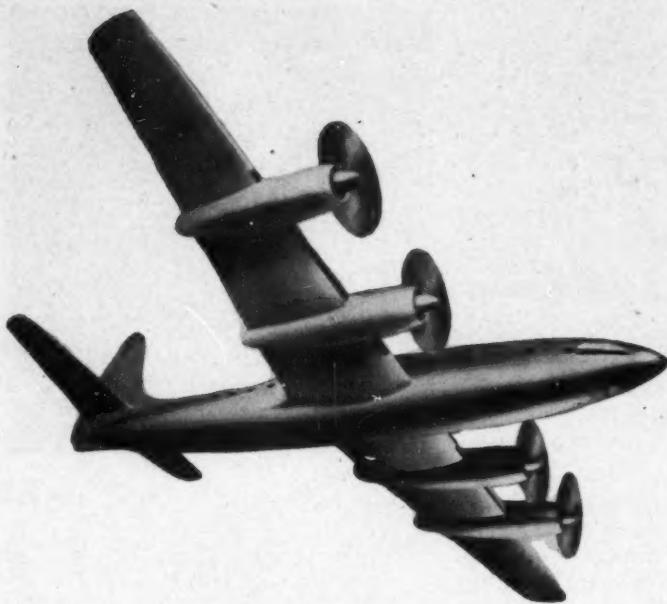
still other means to be used to solve ground operation problems.

With mass traffic realized at Idlewild, the pace will be set for other airports, and things learned there may be applied to other centers of air traffic. Idlewild's influence upon the entire air traffic picture should be far-reaching in many respects.

Idlewild will make possible faster service and increased passenger carryings via air to many nearby cities for it will reduce the demand for landing and take-off time at LaGuardia Field for long distance flights and thus make possible the addition of many scheduled flights between nearby points.

Already four-motored planes capable of carrying 40 to 50 passengers are beginning to appear on the airways and they will soon be joined by giant speedy air transports able to handle 75 to 150 passengers and in some cases 200. The acceleration of cruising speeds is one of the surest methods of reaching out for





**FLYIN' HIGH**—The recently announced Republic Rainbow, 40-passenger airliner which will make the New York-Los Angeles hop in six hours.

mass travel and planes with cruising speeds of 200 to 300 miles an hour to shorten travel between major cities shortly will join the new air fleet which is building.

Increased utilization of planes is being pushed to raise schedule frequencies; and at the same time, small speedy planes are being built so as to insure many additional round trips on shorter flights such as between New York and Boston or Washington.

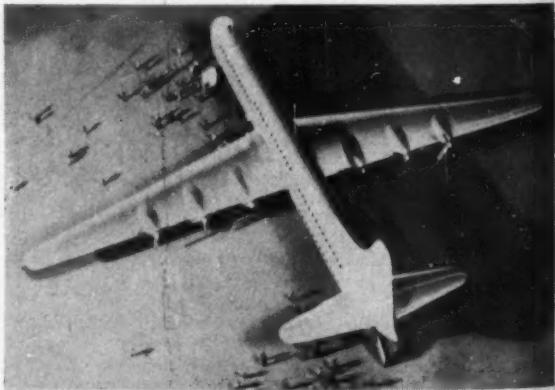
The trend of air transportation was changed by the war, and it is now zooming to mass travel. Up to the time of Pearl Harbor, the airlines of the United States, catering to those

accustomed to first-class transportation, were showing a steady upward trend in passenger loads. The year 1940 topped all previous years with an increase of more than a million passengers over 1939. Of course this was followed by a drop due to the airlines relinquishing a large number of their planes to the armed forces.

*By 1944 the domestic airlines were back in the position of gaining more than a million passengers yearly, and this year should top the 1944 figure of 4,688,330 by a gain of more than two million.*

The recent removal of priority restrictions,

**TALKING OF BIG ONES**—Model of the Consolidated Vultee 37, which will be able to transport more than 200 persons on each flight. Its overall size is equal to the height of a 21-story building.



The re-  
40-pas-  
which  
New York-  
in six



**OUT OF THE ARMY NOW**—The Lockheed Constellation, another of the long-distance air transports soon to be seen regularly on commercial domestic and overseas routes. TWA recently revealed that it had ordered 36 such aircraft.

which brought back to the airlines many of their old travelers, coupled with fare reductions, which lured an entirely new class of travelers into the picture to compete for available seats, proved definitely the mass appeal that air transportation has today.

Rate reductions which the airlines have put in effect during the present year have brought air fares in many instances below first-class rail fares plus lower berth. The transcontinental air fare from New York to Los Angeles or San Francisco is \$118.30. From Portland, Oregon to Washington, D. C., the air fare is \$111.35. To Miami from New York, the air fare is \$56.65; from Boston \$65.00; from Chicago \$59.00; and from Detroit \$58.35. The savings over first-class rail fare with a lower berth on these flights vary from 19 cents to \$9.02. And this does not take into account the fact that airline meals are complimentary and no tipping is allowed.

Next year, when Idlewild begins active operations, should see an even greater gain in the mass travel that is now being attracted to the airlines. The fleet of planes used in scheduled air transportation should increase to 1,352 planes by the end of 1946, according to the aircraft now on order or on option by the airlines. The carriers then will seat approximately 55,450 passengers and will be capable of operating in the vicinity of 10 billion passenger-miles per year.

Included in the above figures are not only the planes of the domestic airlines, but also those of our international carriers that will fly from the airports of this country. The extent of this growth is clearly indicated by the fact that the United States domestic and overseas airlines, as of October 1, 1945, had a fleet of 462 planes licensed and actually operating. This number is expected to exceed 500 before the end of the year, as many of the airlines have additional planes acquired from the

Army which are now being reconverted for use on our national and international routes.

The extent of the expanded passenger capacity is further seen by comparison with the figure of 2,264,282,443 passenger-miles flown by the wartime fleet of 1944.

With the prospect that flights to foreign countries during the tourist season will be 50 to 70 times greater than they were before the war, there's little doubt mass air travel to Europe will also become an actuality. One of the airlines flying the North Atlantic has forecast an annual carriage of more than 500,000 passengers.

Already the United States flag airlines flying international routes are planning for several schedules a day to London, Paris, Vienna, Prague, Mexico City and other capitals in Central and South America. As deliveries of the big planes already on order are received, schedules will also be inaugurated to the Scandinavian peninsula, the Balkans, Greece, Italy, Poland, Portugal, Russia, Spain, Switzerland, Turkey, Egypt, Africa and the far east via both Europe and Africa.

The mass transportation of passengers is not the only growth the airlines are pushing. Mail loads are exceedingly heavy and air express has been showing sizeable gains. On January 1, the airlines will reduce air express rates 13 percent to insure a continual rise in their express tonnage carried.

Another thing which is making for mass air travel is the improvement in the reliability of air transportation. During recent years, the percentage of scheduled miles actually flown by the airlines has averaged from 94.09 to 95.60. Much hard work has gone into the solution of the various problems that sometimes make it necessary to cancel or postpone flights on account of weather conditions. Improved instruments, including developments during the war in radar and other electronic devices,

**SKYMASTER COMES IN**—A fine war record was chalked up by the Douglas Skymaster (DC-4). Wearing its new airline symbols, the plane will be a familiar sight at Idlewild and other airports of the globe.



which permit landing under practically zero conditions, will allow the airlines to push their record of scheduled miles completed up and up until the time will soon come when cancellations of trips or the passing up of a stop due to poor weather will be a thing of the past.

This winter, as an example of the improvements that are here, 12 of the major airport terminals will have new instrument approach facilities. With these the airlines expect to land aircraft under instrument conditions at intervals of three minutes instead of the present 12 to 15 minutes required when the weather is bad.

It is not only with lower fares, greater re-

liability, faster planes, better utilization of aircraft and increased scheduling of flights that the airlines are reaching out for mass travel. They are increasing the number of cities served. Since the dropping of the war service patterns, many additional cities are receiving airline service. In January, 1944, the domestic airlines were serving 202 cities. Twenty-one months later there were 406 cities certified for service and of this number 315, or 113 more cities, were receiving air service than in January, 1944. This growth has been accompanied by an enormous extension of airline routes all over this country. Between 1934 and 1944, the airway route mileage increased from 28,084 miles to 40,392 miles. As of October



**YES, MASS AIR TRAVEL**—Seating arrangements for some of the 80 passengers accommodated by the Boeing Stratocruiser. Pan American World Airways has ordered a score of these giant transports.



Today hundreds  
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by television ...

Monday evenings over NBC's  
New York Station, WNBT.

## Tomorrow everybody can go to Mexico by CLIPPER

Space aboard the Flying Clippers is still limited. But soon larger, more comfortable Clippers will go into operation . . . Mexico City will then be 3½ hours from New Orleans—with comparably fast flying times from Miami, Nuevo Laredo, Brownsville, and Los Angeles.

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lounges, the world's  
finest meals.

For your next  
Clipper trip, see your  
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**PAN AMERICAN WORLD AIRWAYS**

*The System of the Flying Clippers*



this year the route mileage has reached an all-time high domestically of 66,971 miles.

The American international carriers have also been granted new routes and additional mileage and will add greatly to their present figures when a decision is made by the Civil Aeronautics Board on Pacific routes.

Just how the combination of greater route miles, faster planes and more intensive use because of improvement in aircraft dependability has brought the airlines into the mass transportation field is shown by the rise in domestic airline passenger mileage of 2,595 percent between 1930 and 1944.

It is not only the rise in passenger mileage that is proof of the fact the airlines are entering the mass travel field. In prewar years it took the airlines 11 years to reach the million mark in passengers carried. It took another five years to make this mark four million. This year the passengers carried will pass the six million mark—a gain of two million over last year—leaving little doubt that the figure of 20 million passengers is not far off.

### Private Flying in N.Z.

The official ban on private flying in New Zealand, which has been in existence for more than six years, will be lifted. What's more, the Government will sell light Army transports to private buyers.

### Beech Aircraft Supplying Companies with Transports

Reconversion at the Beech Aircraft Corporation plant in Wichita, Kansas, has been completed and orders for firm commercial planes totaling millions of dollars are presently being delivered to more than 12 firms.

The company has already delivered three twin-engine executive transport planes of the Model 18 type to the Byron Jackson Corporation, the Continental Can Company, and the Mead Corporation. Current production of this plane is two-a-day. It seats six or seven passengers and has a cruising speed in excess of 200 miles an hour.

Innovations in the new postwar D18S Beechcraft, a transport plane, include a redesigned landing gear, extension of engine nacelles and flush riveting to smooth out air flow at cruising speeds in excess of 200 miles an hour. Structural changes are a redesigned cabin interior and a new instrument panel. Work is now in progress on a feeder airline version of the Model 18 and on alternate power plant installations using Continental engines; and production of the Model 17, a five-place single-engine biplane.



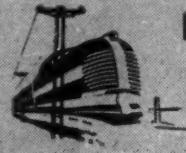
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# Skyborne Freight

*and*

## New York's New Airport

*Idlewild, says the author, will play a stirring role in air commerce, pointing to the fact that New York "is a focal point for the assemblage and distribution of commodities on a domestic and international scale." The future of the transportation of cargo-by-air is a brilliant one, indeed.*

By EMERY F. JOHNSON

Secretary, Air Cargo Section  
AIR TRAFFIC CONFERENCE OF AMERICA



NO media of transportation have greater reason to look optimistically to the future than air cargo which has developed into an integral cog of commercial aviation. Its tremendous expanse in recent years, during which the pound-miles flown have increased more than 650 percent, is indicative of the potentialities air cargo holds in the immediate years ahead. The role New York City, in general, and the Idlewild Airport in particular, will play in this field will be of utmost importance, because the metropolis is a focal point for the assemblage and distribution of commodities on a domestic and international scale.

More than 30 percent of all air cargo now originates or terminates at LaGuardia Field, which already is too small to meet the demands of air transport carriers. As the magnitude of this business spreads, the amount of cargo to be handled at Idlewild is bound to multiply manifold.

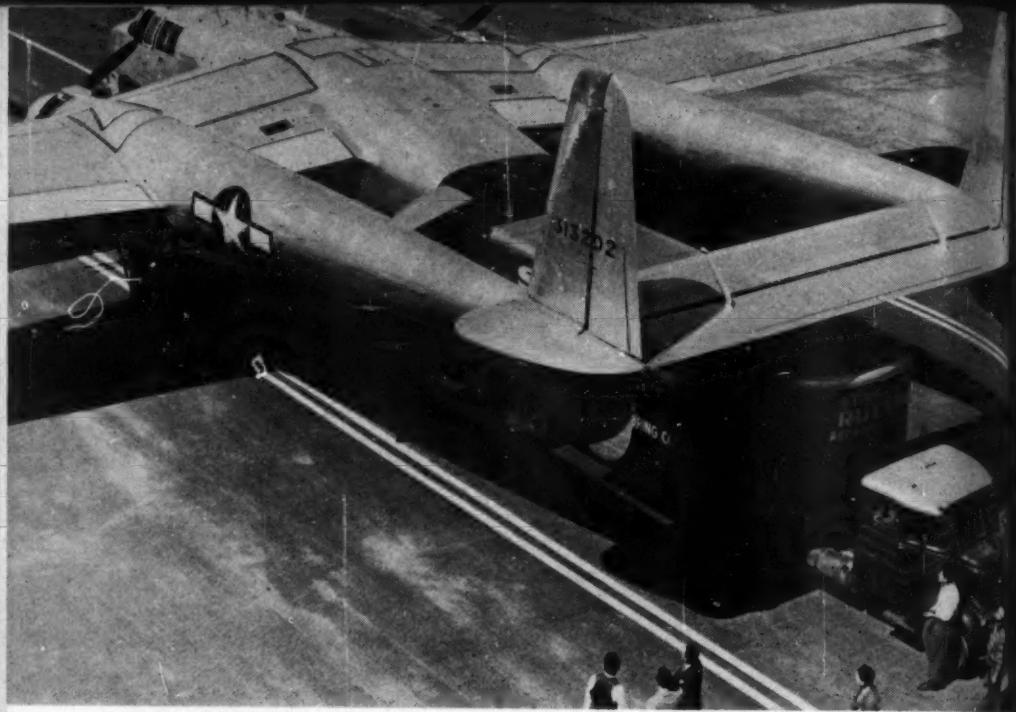
That the United States flag airlines, comprising the Air Transport Association of America, have complete confidence in the expansion of their cargo traffic is attested by the thousands of feet of space they are in the act of requesting at Idlewild for the purpose of housing their air mail field post office as well as air express facilities, both of which are component parts of the air cargo business.

The airlines have been called on by the Post Office Department to furnish and maintain 188,000 square feet of ground floor space at

Idlewild for a modern air mail post office. This is in sharp contrast to the overcrowded unit in use at LaGuardia, which might easily be hidden in a small nook of the elaborate mail center at the new airport.

As for cargo facilities, there is a foreseeable need for 15,000 square feet to handle air express packages alone in the near future at Idlewild. Plans submitted to the airlines call ultimately for 20,053 square feet, including 5,000 square feet that would be reserved for airline cargo bins and work room. The frontage would possess 10 openings for vehicles.

Whether or not the airlines will find this space available in the administration building at Idlewild remains to be determined. There is also a possibility that a new and separate building calling for an expenditure of nearly \$1,000,000 will be erected on the premises to



**CARGO FOR FLIGHT**—The Fairchild Packet, ace cargoplane, which soon will be seen operating along the commercial highways and byways of the air.

handle air mail-cargo, although this point, too, is yet to be clarified.

The primary problem at present is that of providing temporary mail-cargo space for the four airlines requested to move to the new airport from LaGuardia at the formal opening. Five hundred feet of space have been requested for expediting cargo alone. In addition, there will be a surface shuttle service.

This space of more than 200,000 square feet envisaged for the mail and cargo divisions does not take into consideration provision for the transport of bulk shipments of all types of cargo, particularly such items as plane-load lots of machinery, home furnishings, perishables and repair parts.

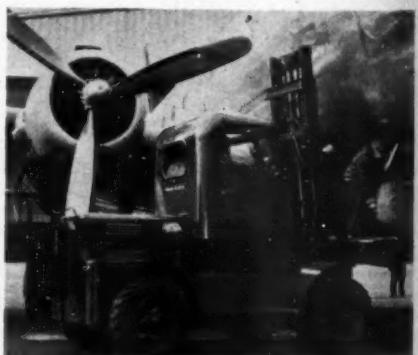
Four airlines engaged in this all-cargo traffic usually rely on loading their "flying boxcars" in their own hangars, thereby eliminating the need for added space. The goods are brought to the airports by truck and loaded aboard the planes by ground crews of the individual carriers. Two other lines which plan to shortly launch similar service are expected to follow the same procedure.

Further indication that the domestic airlines are making a concerted move to increase their cargo business was manifested recently when they authorized an overall reduction of 13 percent in air express rates to become effective January 1 over their some 67,000 miles of routes.

The reduced rates will lower the present

basic charges from 70 to 61 2/5 cents per ton-mile, and will decrease the coast-to-coast rate from 84 to 73 cents per pound. Under the new tariff, the haulage factor will decrease from 3 1/2 cents to a fraction over three cents per pound per 100 miles. As an example, the New York-Chicago rate, covering a distance of 711 statute miles, will be cut from 24 1/2 cents per pound to 21 3/10 cents.

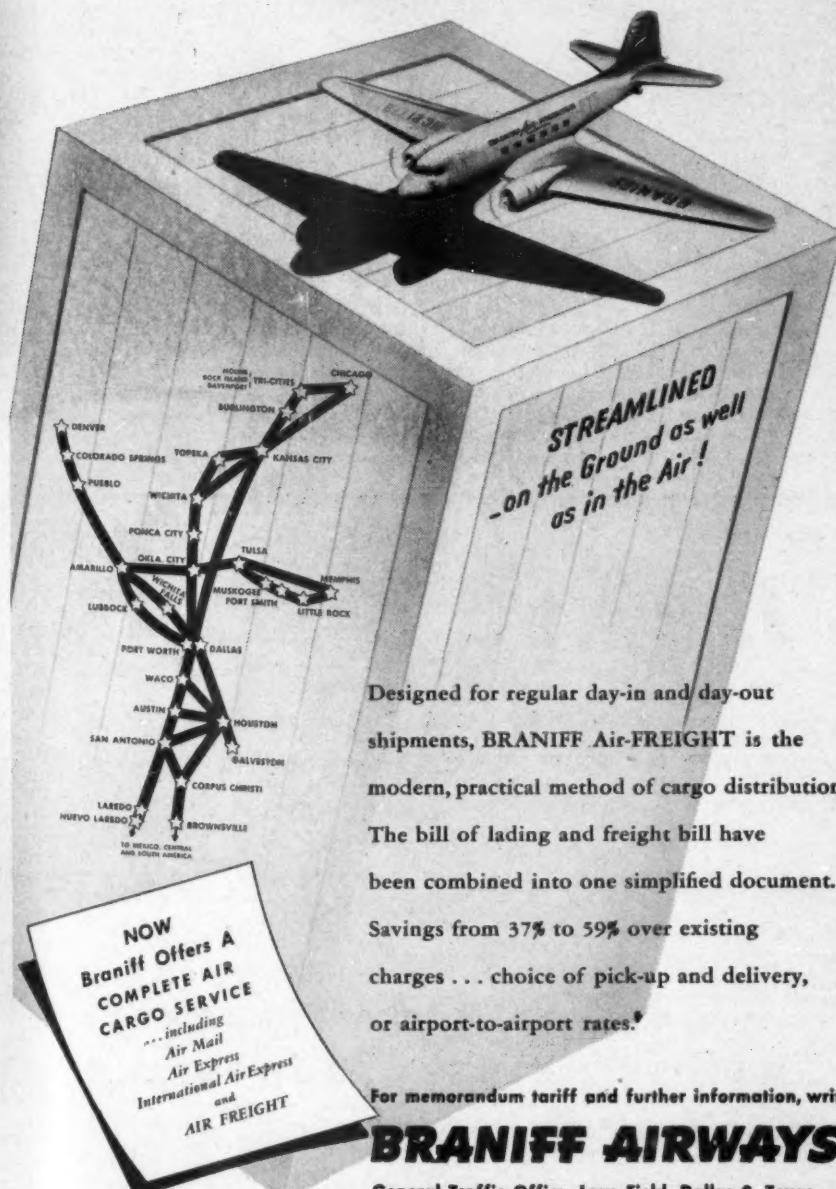
At the same time the new rates will not affect the special commodity express tariffs al-

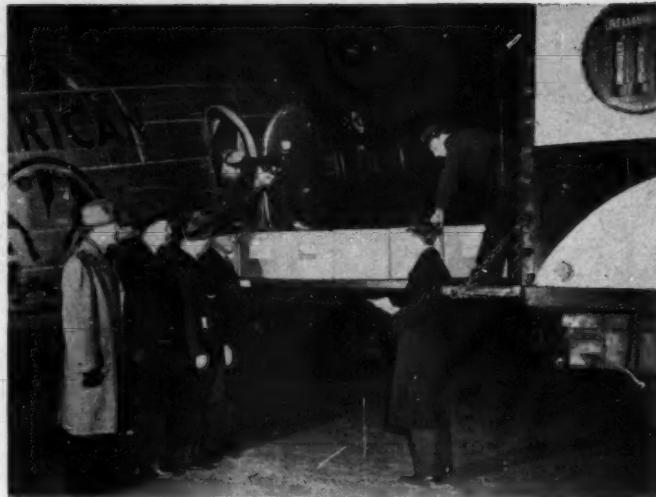


**OVERSEAS AIR CARGO**—An American Airlines transport loading up cargo before taking off for a European destination.

# BRANIFF *Air-FREIGHT*

Beginning December 1, 1945





**PENICILLIN BY AIR—**  
Cargo handlers taking  
on a plane load of the  
miracle drug for swift  
shipment from New York  
to the West Coast.

ready 40 percent under the basic fees on such items as perishable foodstuff, flowers, newspapers and other printed matter. Neither will they have any adverse bearing on the even lower cargo rates involving bulk shipments.

Meantime, one transatlantic operator has announced reduction of its express charges

between New York and Shannon, London and Lisbon. Already effective, the new rates coincided with the downward revision of passenger tariffs. The international schedule calls for air shipments to England, Scotland and Wales to be handled through London for \$1.17 per pound, compared with the former rate of

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\$2.02, a saving of more than 42 percent. The rate to Shannon will be \$1.09 per pound, a 69-cent unit saving as compared with the old scale.

In this connection, New York clothing manufacturers and other enterprises which fly their wares to and from market, stand to realize further savings under the new nation-wide and overseas express tariffs by use of new and shorter routes, since rates are compiled on the basis of mileages.

There were 4,034 miles of new routes added to the domestic airline system of the United States during the first nine months of this year, in addition to 8,435 miles established in 1944, and as airlines expand such mileage they are able to shorten their routes between many sections and cities. The number of new international routes recently opened and others set for regular scheduled air service soon will greatly augment this overall mileage increase.

To provide ample shipping space for the increase in cargo traffic, the airlines have set in motion plans that in the next two years will enable them to fly about one billion pounds of goods annually, compared with 202,879,006 pounds of mail, express and excess baggage handled last year when all previous cargo records were shattered. This five-fold increase in the commercial cargo-carrying capacity is based on the amount of additional space that will be available in the more than 500 new planes the airlines have ordered or else hold

options on, plus 700 passenger-cargo craft now in operation or being prepped for operation in the near future.

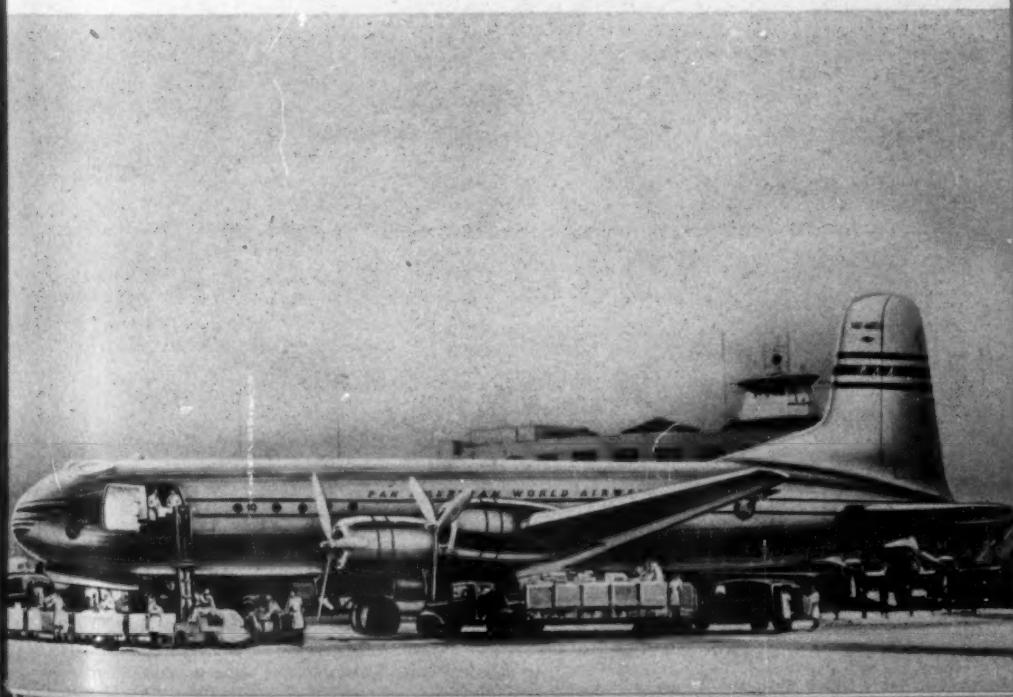
These carriers are over and above the specially designed all-cargo planes expected soon to roll from the assembly lines of aircraft manufacturers. Once the new model is perfected airlines may be expected to put 200 into the air. It is estimated that it will take between 400 and 600 "boxcars" to handle air cargo business in the next few years.

The cargo plane in this Age of Flight is capable of transporting commodities at 10 to 15 times the speed of surface travel and ocean voyage. To manufacturers interested in the international field this will mean additional openings to overseas markets without fear of deterioration of goods; to those with an eye toward domestic business, delivery by air has become an overnight affair.

Today there are something like a quarter-million miles of domestic and overseas routes. Virtually every city and hamlet is accessible by air—no matter the country; no matter how rugged the terrain nor how turbulent the seas.

Air cargo, a comparative newcomer to the transportation industry, stands on the threshold of revolutionizing the movement of goods. Especially is this true of goods possessing high value and others wherein speed comes first. Later, as the airlines find means of further lowering their tariff rates, the more common variety of commodities will take to the air

**AIR CARGO BY THE TON**—Artist's impression of the Douglas DC-7, giant airliner-to-be, which is expected to have a range of 5,000 miles.



**AIR EXPRESS PLANS—**  
Thinking in terms of increased shipments by air, these officials examine a map of Idlewild for strategic locations. Left to right are P. H. Cummings, air traffic executive, REA; R. G. McLain, manager Eastern Department, Air Express Division; and John F. Budd, publisher of Air Transportation and chairman of the Aviation Section.



with greater regularity. By the term "common variety" is implied such items ranging from mother's milk to motor parts; from the hamster, a rodent used in experiments to further cancer research, to jeeps; from jewelry to glassware; from mink furs to household appliances; from the wonder drug, penicillin, to planeloads of tomato plants; and from machinery, which was the wartime number one commodity in volume and frequency, to garden-fresh vegetables and fruits, all of which are among the thousand and one types of goods successfully flown in the past.

And behind the scene will be Idlewild and similar super terminals located over the world to provide the facilities to keep cargo moving.

## **AA to Fly Planes To Amsterdam and Berlin**

It has been revealed by an American Airlines official that the company will inaugurate weekly flights from New York to Amsterdam and Berlin on January 15, and to Copenhagen and Stockholm on February 1. Service to the Scandinavian countries will include Oslo as soon as the necessary navigational and landing aids are installed at Gardermoen Airport, 30 miles from Oslo.

AA was the first commercial airline to offer daily flights across the Atlantic.

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# Mail Order By Air?



A candid appraisal of air freight as seen through the eyes of a mail order company official. Pointing to the development of the passenger business by the airlines, the author sees patronage for "an efficient air freight service."

By PAUL W. BROWN  
*General Traffic Manager, SEARS, ROEBUCK & COMPANY*

THE use of air service for handling cargo for the Chicago mail order companies has been largely confined to unusual or emergency shipments where service was of paramount importance and transportation cost a secondary consideration. In the case of our own company, I recall that during the Ohio River flood of 1937, we chartered two planes to fly blankets, rubber boots, oil stoves, and other flood relief merchandise urgently needed to relieve distress and aid in rescue work. The need was great—under such conditions, cost is not a factor.

I find the mail order companies have used air service from time to time to move advertising material which must arrive to meet a certain schedule. Repair parts and occasional special orders to meet an out-of-stock condition are shipped by air. One company utilizes air express to fill orders of expensive jewelry items from a centralized stock. I am not aware of any regular movement by air of ordinary stock items by any of the mail order companies, today.

High cost is the factor that has restricted the use of air service for the mail order industry. In general, our business depends upon meeting the demands of the typical average American family. Clothing and other items necessary for their daily requirements are a substantial portion of our sales volume. Our customers are keen shoppers, and to meet their requirements we must make these materials available at a reasonable cost.

The retail field, and the mail order branch

of that field in particular, are highly competitive. Contrary to popular belief, the percentage of profit realized by the average retail operation is not a large one compared with many other industries. In normal times, retail operations only average two to four percent net profit on sales. Thus a small increase in cost can become the difference between a profitable and a non-profitable operation.

To some, it may appear that transportation is only a small part of cost and the difference of a few pennies in additional cost for air service should not be sufficiently important to prohibit the use of this service. In the mail order industry, the addition of a few pennies in cost per item is of tremendous importance and could easily be the cause of unsuccessful operation.

To illustrate the importance of transportation cost to the mail order industry, I would call attention to the comparison of rates on dry goods and clothing by air freight, rail express, and rail freight between Chicago and several representative points found elsewhere on this page. These figures may not be completely up-to-date; however, I believe they are sufficiently accurate to indicate the difference



Paul W. Brown

### The Author

Born in Cleveland 45 years ago, Paul W. Brown attended the public schools of his native state and Illinois. Following higher education at Mount Union College, Alliance, Ohio, he served with the United States Marine Corps from 1917 to 1919.

Before joining Sears, Roebuck and Company in 1929, he was employed by a Chicago newspaper and a bank. Mr. Brown carried out various assignments in the Operating and Traffic Divisions of Sears, and in 1937 was elevated to the position of assistant general traffic manager. Five years later he was made general traffic manager.

Mr. Brown is married and has three daughters. His home is in Glen Ellyn, Illinois.

duced substantially under the present levels. It is my opinion, additional mail order tonnage may be attracted gradually, beginning with the items of high per pound value and moving on down the list as the air lines find it impossible to reduce rates.

*I believe our industry will find it advantageous to utilize air freight service in an increasingly number of instances in the near future.* For example, on shipments of items in the higher priced lines where samples only are maintained in the stores and orders transmitted by wire to a central stock, undoubtedly, we will find it an advantage to utilize air transportation.

It appears, also that we will find an increasing need for air freight service to handle repair parts and for meeting out-of-stock emergencies, particularly in moving supplies of seasonable high-style lines, such as ladies' hats and shoes.

#### from CHICAGO to

	New York	Boston	Dallas	Los Angeles
Air Freight .....	.15	.177	.177	.341
Rail Express .....	.043	.044	.05	.102
Rail Freight .....	.017	.017	.026	.044

in the present per pound rates charged.

On men's suits shipped from New York to Chicago, we find that a suit weighing five pounds and selling for \$25 if shipped by air, would incur an additional transportation cost of approximately 65 cents per suit. Thus, on 100,000 transactions, we would experience an increase in landed cost of \$65,000. On children's dresses weighing one-half pound and selling for five dollars, moving from Chicago to Los Angeles, the additional charges would be approximately 15 cents per dress.

Inbound transportation costs to Chicago plants on mail order merchandise probably average about one cent per pound. While some part of this traffic may, under present rates, be available for movement by air, it does not seem likely that any large volume will move in this service until rates are re-

Again, air service probably will be demanded to handle promotional items where a saving of a few days in transit time will contribute to a successful sale. It goes without saying that additional cases will develop as air freight service is expanded and costs reduced.

Before concluding the following suggestions are offered for consideration:

1. An effort should be made to keep air freight rate schedules as simple as possible. We feel it is important that air transport companies do not publish tariffs as complicated and as difficult to interpret as some of our present-day rail tariffs.

2. A sliding scale of volume rates should be published to encourage the con-

(Continued on Page 70)



## **"FLYING ICE BOX"**

## **United's new refrigerated plane makes history**

Last month, United Air Lines pioneered another first in air cargo—a fully refrigerated plane devoted to the 3-mile-a-minute shipment of perishables.

The flying "reefer"—a Cargoliner equipped with five huge insulated units each holding 1600 pounds—left the West Coast for the East with a full load of flowers, fruits, vegetables and emergency serum. On the return flight, tons of fresh sea foods were put on sale in midwestern markets less than twelve hours after fishing boats had docked at Boston!

United's new-type plane eliminates the need for heavy shipping containers and weighty ice. It provides correct temperatures for different commodities. The insulated units can also be removed for quick ground transfer.

Here is an example of the new things to come in the shipment of perishables. United

—first to introduce round-trip, coast-to-coast Cargoliner service seven days a week—has other plans in store for shippers.

For information, write to Air Cargo, United Air Lines, 5959 South Cicero Avenue, Chicago 38, Illinois.



# Hailing an Airport

It was plain from the very beginning that the Idlewild Airport project in New York was not just another construction job. Here, for the first time, was a bold step forward to prepare for an astonishing new era which is expected to bring along with it some revolutionary changes in the way of living of the world's peoples. To view Idlewild as a giant airport and let it go at that, is wrong. It is nearer correct to consider the great undertaking as a major component in civilization's newest form of trade and travel; as a teeming terminus taking on, as the years progress, the aspect of melting pot. **AIR TRANSPORTATION** put the subject up to a number of representative personages, and requested their comment. Following are their replies:

**FIELD MARSHAL**  
**SIR HAROLD R. L. G. ALEXANDER**  
*Allied Force Headquarters*

I WAS most interested to hear about the opening of the great Idlewild Airport. It must be obvious from the tremendous close co-operation which has grown up through the war between Great Britain and America that the greater the spread of international travels, the firmer will be the resulting international friendship. And, it may also be obvious that in air transportation lies the possibility of bringing international travel within the reach of millions instead of thousands, as in the past.

Idlewild will play a great part in the future of air transportation which in the end is bound to benefit not only the United States of America, but the whole world.

I have made so many friends among your countrymen during the war that I am quite certain that I shall visit the States at frequent intervals during my stay in Canada—and I hope that I shall see the airport of Idlewild then.

**HENRY H. ARNOLD**  
*General of the Army*

THE men who envisioned and who are now carrying through the construction of Idlewild Airport have my hearty congratulations. The creation of this, the largest airport in the world, is a splendid example of the planning that has brought America to its position as the ranking air power of the world today.

While the AAF's part in this rise essentially

has been that of a combat organization, as a part of our military program we have had to operate a huge air cargo and passenger establishment, the Air Transport Command. Operating out of two hundred bases, more than two-thirds of them in foreign countries, this command has flown well over eight million plane-miles in the last four years. During these years we have learned to appreciate fully the value of good operating terminals. As our military success has depended on adequate bases, so will our future military security, and so will our peacetime commercial strength. Idlewild promises to be a base ultimately worthy of such dependence.

**HENRI BONNET**

*French Ambassador to the United States*

THE opening the Idlewild Airport is an event of great importance and a source of deep satisfaction to every internationally minded individual throughout the world.

When General de Gaulle visited New York last July, the Mayor showed him the airport in construction. I had the privilege of being there, and the opportunity of witnessing once more the boldness and efficiency of American engineering.

A great step is being thus taken towards the development of Atlantic communications, bringing closer to one another this great Democracy and Europe.

I am particularly glad of this new possibility of more frequent and more rapid relations between those old friends from across the seas, the United States and France.

## THOMAS E. DEWEY

*Governor, State of New York*

IT is a pleasure to greet the readers of AIR TRANSPORTATION in the issue devoted to the opening of Idlewild Airport.

AIR TRANSPORTATION is to be congratulated upon its realization that the opening of Idlewild deserves a complete issue of the magazine. Congratulations likewise to New York City, whose foresight has not only made it the air capital of the world but, as evidenced by the facilities at Idlewild, shows its determination to maintain that position.

The State of New York is determined to achieve and maintain leadership in every field of aeronautical endeavor. A practical evidence of our concern for aviation was the recent enactment of legislation setting up a Bureau of Aviation in our Department of Commerce for the purpose of aiding the development of a system of air routes, airports and landing fields, and cooperating with state and federal agencies, as well as private individuals and groups, in coordinating the development of air commerce and air facilities in the State.

New York means business in aviation as well as in other fields.

## PETER MASEFIELD

*British Civil Air Attaché*

AIRPORTS are the stepping-stones to world air transport. No airport and no stepping-stone to trade, prosperity and the close understanding between Nations, is more important than that which serves New York. Idlewild Airport will indeed play a major role in postwar international relationships. It will be for travelers from the United Kingdom the principal gateway to the United States, for Americans a jumping off point to the lands beyond the sea.

Thus it gives me very great pleasure to be asked to send some words of greeting to AIR

TRANSPORTATION on the occasion of the opening of Idlewild for commercial air traffic.

We of England hope that before long great new caravans of the air will be flying daily—even hourly—between Idlewild, New York, and our own new international airport of Heath Row, near London. Idlewild is for us in particular a symbol of the close accord between our two Nations, separated physically now by only a few hours of flying.

In truth, Idlewild will reveal in no uncertain terms the world-wide nature of commercial air transport. Beside the teeming transports of the United States domestic airlines one looks to see the ocean-going airliners of America's overseas Aviation, loading and unloading. There too, will be the transient aircraft of all the Nations of the World. With a handling capacity of six flights a minute Idlewild will truly express in a new Age the words of Tennyson. For it will see and provide for

*"... all the Peoples great and small  
That wheel between the poles."*

I have read AIR TRANSPORTATION with interest and edification from its first number, and I congratulate its editors on their initiative in preparing a special issue to mark the opening of Idlewild.

## L. WELCH POGUE

*Chairman, Civil Aeronautics Board*

THE dawn of peace over a war weary world brings to an end history's greatest tragedy. America's productive might and scientific genius may now be diverted to the building of new channels of trade and commerce in which air transportation will serve as a principal instrument of international commerce and friendship among all peoples of the earth.

A predominant power in war, the airplane will become a major force in international social and economic cooperation. Ease and speed of travel stimulate commerce. Expansion of railroads in this country between 1880



Left to right: Sir Harold R. L. G. Alexander, General Henry H. Arnold, Ambassador Henri Bonnet, Governor Thomas E. Dewey, and Peter Masefield.



Left to right: L. Welch Pogue, Mrs. Franklin D. Roosevelt, Jan Christiaan Smuts, Secretary of Commerce Henry A. Wallace, and Theodore P. Wright.

and 1915 resulted in over 300 percent increase in passenger travel. The automobile did not reduce the over-all railroad traffic, but developed an entirely new and large volume of travel. Better and faster ocean liners increased our travel to foreign lands from one person in 5,000 in colonial time to one out of 350 before the war. As fast travel becomes available to industry, markets and business expand. We do not know the limit of our capacity to trade and travel as the transportation medium improves and rates are reduced, but the establishment of international air routes may be expected to result in a tremendous growth of entirely new business which has never before existed.

Although every new form of transportation has created new traffic, diversion of some traffic from surface vessels to the transocean airliner may be expected and this will initially consist principally of passenger traffic. The cost of traveling by air will be competitive with that of first and cabin-class travel by sea, and persons interested in speed will have strong motives to go by air. The time saved in air travel will range from days to weeks and such an inducement is compelling to the business man. However, the first and cabin-class sea travel which is destined to travel by air will, in the long run, be but a minor fraction of the total of international air travel. New passenger business will constitute the major portion.

As markets expand bulk shipments will increase, and it is expected that our merchant vessels will continue to carry the large majority of these shipments. Thus, the expansion of international trade resulting from the establishment of international air transport will stimulate all other forms of transportation and business.

Alert to the importance of international air transport, the Civil Aeronautics Board, upon approval of the President on July 5, 1945, awarded certificates of public convenience and necessity to three American flag carriers for

air routes extending from our Atlantic seaboard through Europe and North Africa to India. Air service to cities in 36 countries will be inaugurated as soon as operational arrangements can be completed. The Board is moving with all speed to determine other air routes and to select air carriers to serve many additional transocean and international needs. Furthermore, expansion of our domestic air transport service pattern is being accomplished.

Wartime development of electronic aids to air navigation will now be applied to commercial air transport uses and navigation over long distances will be executed with extreme accuracy. In the near future radar will provide the means through which safe landings under weather conditions of very low ceiling and visibility will be of common occurrence. Cancellation of schedules because of inclement weather will be greatly reduced and the nation's business will be able to place greater dependence upon the maintenance of on-time regularity of schedules.

Adequate airports and ground facilities must be established to accommodate the inevitable expansion of air transport. In the midst of civilization's greatest historical events it is significant that New York, America's leading city, announces the opening of Idlewild Airport, the largest in the world.

The scheduled completion of Idlewild Airport, with its many radiating concrete runways to expedite the handling of increased air traffic and its provisions for every passenger comfort including rapid transportation to the heart of New York City, will mark a real contribution to the progress of air travel and to the establishment of a new world order of international social and economic cooperation.

#### MRS. FRANKLIN D. ROOSEVELT

THE new and greater Idlewild Airport will connect New York even more closely with

# PEACE I LEAVE WITH YOU

*The men and women of America who have returned, who are still to return, and those who will never return, have left in our hands the priceless gift of a threefold peace . . . peace with ourselves, peace with our neighbors, peace with God. It is brought us, not as a trophy but as the gold and frankincense and myrrh were offered on the world's first Christmas.*

*Each American in his way fought to make possible this Christmastide of Peace. Yet the thunderous praise of victory is becoming a faint echo among the mountain tops . . . our ideals for peace are being drawn into the vortex of confused whirlpools.*

*The words of the Prince of Peace are being repeated in unison by our millions of warriors, "Peace I leave with you." It remains for each of us to guard this peace for America's coming generations.*

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the whole world and make us more international minded. Our responsibility and opportunity to foster world friendships will be increased. As a dweller in this city, I am proud of this new venture.

### FIELD MARSHAL JAN CHRISTIAAN SMUTS

*Prime Minister, Union of South Africa*

I SEND my greetings and congratulations to our friends in the United States of America on the occasion of the opening of their great new airport.

The role awaiting civil aviation in the immediate future is incalculable perhaps even more important than its role in World War II. Its message both in war and peace is that no nation can live unto itself alone. By now bringing the peoples of the world closer together, aviation can help us to build those solid foundations on which only can we hope to establish a true and lasting peace.

### HENRY A. WALLACE *Secretary of Commerce*

IDEWILD Airport, a haven for fliers and airplanes from East and West, from North and South, is a beacon on the road to international peace and good neighborliness.

At Idlewild, just as on the World Air Map, the Western and Eastern Hemispheres are no more. Instead, the concept of "no boundaries," fully accepted, creates a tremendous force in the ultimate cementing of good international relations.

On the runways of this magnificent airport—yesterday a dream, today concrete fact—planes will land and take off with their precious cargoes of peoples, commodities and good will.

As a result, every man, though he be at the other end of the globe, will be a real neighbor to his fellow man.

Thus will, we hope, the Idlewild Airport prove a definite force in rebuilding the world of today to make certain of the peace in the world of tomorrow.

### THEODORE PAUL WRIGHT *Administrator of Civil Aeronautics*

THE Idlewild Airport, the world's greatest—where planes from all corners of the earth will congregate—typifies man's triumph over the hazards of the air.

But of even greater significance is the fact that it heralds a new era of peace on earth and good-will to all mankind. Indeed, it is extremely fitting that the opening of this magnificent airport should take place but a few weeks after men throughout the world began to "beat their swords into ploughshares" and to follow the paths of peace. To these multitudes everywhere, the beacons atop Idlewild will act as additional welcoming signs of the new era.

In the few years since the Wright Brothers' first flight, the airplane has become a dominant world force because it has given men a new freedom—the freedom of movement, over and beyond age-old barriers. Distances are now measured in minutes. To travel by air is to enjoy an entirely new perspective of the world; prejudices can be discarded. All continents and peoples everywhere become our neighbors.

To all of these people, Idlewild extends a friendly hand and says "Welcome." In a world of this kind, there will be no room for age-old quarrels and frictions. Instead, there will be a new era where the world will be ours to enjoy and to explore, peacefully and prosperously among our world-wide neighbors.

## Luxury Skymasters to Fly C & S Air Routes by April

The first of a fleet of giant four motored 56-passenger Douglas *Skymasters* has been acquired by Chicago and Southern Air Lines and will go into service over the company's network of sky routes on April 1, 1946.

The big Douglas transports will serve Chicago, St. Louis, Memphis, New Orleans, Detroit, Indianapolis and Houston. Intermediate points on the line such as Toledo, Fort Wayne, Evansville, Paducah, Peoria, Jackson, Greenwood, Little Rock, El Dorado and Shreveport will continue to be served by the smaller Douglas *Skytrains*. There will be a greater frequency of 21-passenger service as soon as the bigger planes are ready, C & S announced.

The new planes will carry a crew of four, two pilots and two stewardesses. Luxuriously

fitted throughout, they will have deluxe interiors with new and striking color schemes, a new type of reclining chair, a powder room for women passengers with paneled walls and full length mirrors. There will be a separate lavatory for men. Indirect lighting will also be a feature of the new planes.

Under consideration by the airline are such novel features as private radio receivers for each passenger, built into the chair upholstery in such a manner that a passenger can listen by merely resting his head upon the cushioned back and thus not disturb other passengers; a teletype reflector installed at the forward end of the passenger cabin which will show the plane's location, direction, and altitude at all times; and provision for television and movies.

# Typical Rates For AIR EXPRESS

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AIR MILES	TYPICAL RATE CHART				
	2 lbs.	5 lbs.	25 lbs.	40 lbs.	Over 40 lbs. Cents per lb.
149	\$1.00	\$1.00	\$1.00	\$1.40	3.5
349	1.04	1.25	2.63	4.20	10.5
549	1.11	1.52	4.38	7.00	17.5
1049	1.26	2.19	8.75	14.00	35
2349	1.65	4.03	20.13	32.20	80.5
Over 2350	1.68	4.20	21.00	33.60	84

RATES SHOWN above include special pick-up and special delivery of shipments in major United States towns and cities — with 3-mile-a-minute speed of flight in between.

SAME-DAY DELIVERY is possible in many cases. If your shipment is moving to or from an off-airline point, rapid air-rail schedules serve 23,000 such points in the United States. Service direct by air to and from scores of foreign countries.

WHEN TIME MEANS MONEY — an order gained, a customer better served — Air Express "earns its weight in gold."

WRITE TODAY for "Jig Saw Puzzle," a booklet packed with facts that will help you solve many a shipping problem. Air Express Division, Railway Express Agency, 230 Park Avenue, New York 17. Or ask for it at any Airline or Express office.

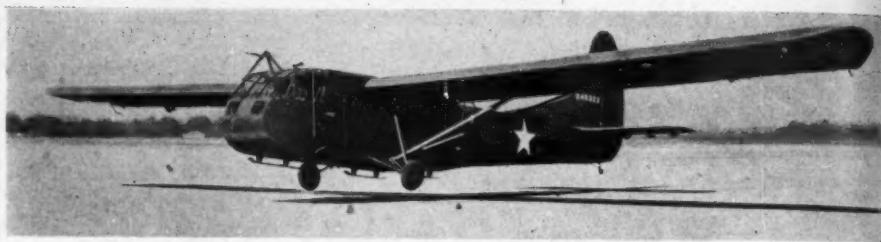
# AIR EXPRESS

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Representing the AIRLINES of the United States



**WAR-PROVED GLIDER**—This type of glider, successfully used by the USAAF during the war, was utilized by the newly organized National Air Cargo Corporation in transporting Christmas merchandise from St. Louis to Los Angeles.

## National Air Cargo Glider In First Commercial Flight

Flanked by newspaper and motion picture cameraman, a glider transporting commercial freight landed at Mines Field, Los Angeles Municipal Airport, thus inaugurating the first flight of National Air Cargo Corporation. The new organization has at its helm Stanley J. Jackson of Los Angeles, a 31-year old veteran of 31 combat bombing missions in the African Theatre.

Carrying Christmas merchandise for Bullock's, The May Company and Desmond's, the capacity-loaded CG-4 model glider was towed from St. Louis by a Douglas C-47. This was the same type of equipment used by the Troop Carrier Command in transporting many thousands of men and supplies to forward lines during the war.

Jackson, who piloted the plane, revealed that the cargo was insured by Lloyds of London for \$25,000. It is thought to be the first insurance placed upon gliderborne cargo. Mather Carson, technical representative for North American Aircraft during the war, is vice-president of NAC. Glider pilots employed by the new company have all had a minimum of four years' experience piloting.

## Kelite Issues Free Book

Kelite Products, Inc., makers of pH controlled industrial cleaning compounds, has published a new 20-page booklet which describes the specialized cleaning materials and methods made available by the company to the aircraft industry.

The information supplied is of interest to operators of private aircraft and bases as well as to responsible personnel in commercial airliner maintenance. Every aircraft cleaning problem is discussed, from metal and fabric surfaces, engine overhaul, through disinfecting and commissary cleaning. Copies of this booklet may be obtained free of charge by writing to the Special Service Department, Air Transportation, 10 Bridge Street, New York 4, N. Y.

## Evans Research Surveys The New York Area For Air Freight Potentials

An extensive survey of potential air freight originating in the New York metropolitan area for Miami and San Francisco has been launched by the Edward S. Evans Transportation Research, it was announced by Colonel L. H. Brittin, director. Fifteen trade associations in Greater New York and northern New Jersey are participating in the survey which involves gathering and compiling data asked of approximately 15,000 companies considered as potential users of air freight services. While in New York, Colonel Brittin has made his headquarters at the Aviation Section, New York Board of Trade.

Colonel Brittin explained that the purpose of the survey was to enable the research organization "to estimate as accurately as possible the potential volume of air freight that is available in this area for air transportation to the California and Florida gateways under certain conditions of rates and service."

"These predetermined conditions," Colonel Brittin continued, "are that the contemplated service would provide daily departure from terminals and overnight schedules in both directions. Intermediate stops would be made by the shortest Great Circle routes. Projected rates have been based on cost of operating surplus military versions of the DC-3 and DC-4 (C-47 and C-54). In these cost studies overhead expense has been reduced to the minimum. These cost studies indicate rates as low as \$15 per cwt. (minimum charge \$5) to the San Francisco area, and \$7 per cwt. (minimum charge \$3) to the Florida areas are possible. Broken down, these rates approximate a little more than 10 cents per ton-mile."

Lists of the concerns contacted were obtained from numerous sources. These include manufacturers, wholesalers, selected retailers and department stores, financial houses, film distributors, newspapers, magazines, and catalogs.

## Harry Bruno Sees All Long-Distance Travel Done by Air Within 10 Years

**H**ARRY BRUNO, the public relations man, who for years has been making predictions and watching them come true, told AIR TRANSPORTATION what he didn't have time to say in his address before the Airlines Traffic Club earlier this month: that he was "not optimistic about the future of the railroads." He said that "very definitely, the handwriting is on the wall."

Within 10 years, Bruno predicted, practically all long-distance travel will be done by air. The railroads "will do all right" during the next five years, he said, but eventually their business will be solely as cargo carriers. Bruno added that the airlines will be transporting virtually all perishables plus numerous other commodities, while the railroads will carry slow, massive freight.

Members of the Airlines Traffic Club, meeting at the Hotel Bristol in New York, heard Bruno predict that within a decade lighter-than-air ships will be in commercial operation; that the average airplane speed will be 650 miles per hour; that 1,000-passenger planes will be a common sight; that feeder airlines all over the United States will operate 30- to 100-passenger planes; that never-before-dreamed-of passenger comforts will have come into existence; that rooftop airports will be

a reality; that gasoline engines will go out of existence, making way for "a new source of power"; that television weather sets will provide the flier with the opportunity to see and hear the weather ahead of him; that safety will be accepted even more than it is now; and that competition between the domestic airlines as well as the foreign airlines will be "terrific."

## Empire Airlines to Serve 14 New York State Cities

Air service between LaGuardia Airport, New York City, and Utica, New York, will be started this month by Empire Airlines, a new company planning to serve 14 communities within the state. The initial trip will be made by a five-place, two-engine Cessna. This is one of five such planes recently acquired by Empire in addition to two 12-passenger Lockheed *Lockstars*. The airline is headed by Dean Alfange, well-known attorney.

**K L M** ROYAL DUTCH AIRLINES

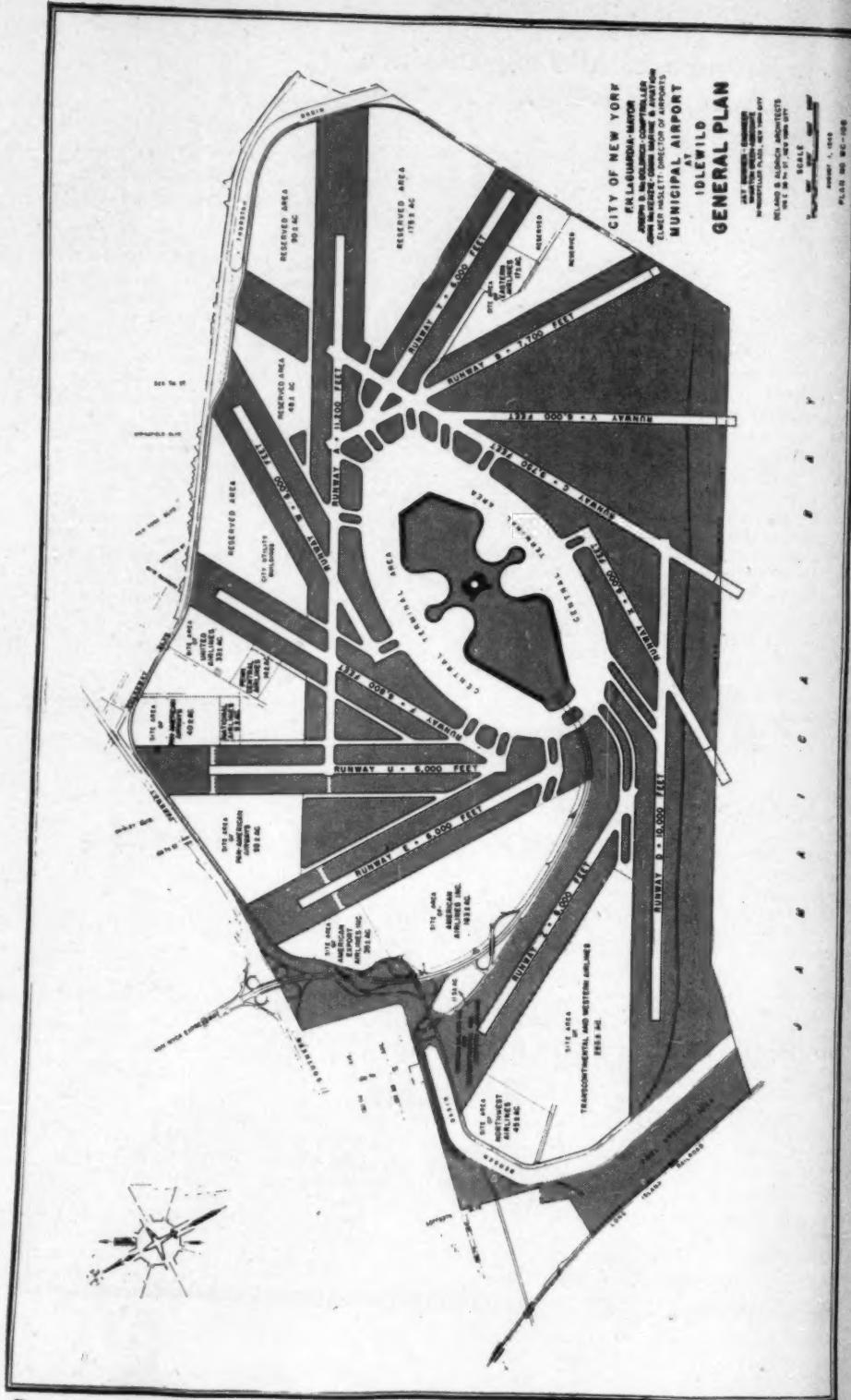
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WORLD'S OLDEST AIRLINE



PAGE 34—AIR TRANSPORTATION—*Air Commerce*

# IDLEWILD...

## Answer to Doubting Thomas

By JOSEPH D. McGOLDRICK  
*Comptroller, CITY OF NEW YORK*

THE building of New York City's new airport at Idlewild is a symbol of the city's faith in the future of its commercial growth and belief in the part that the world's airways will play in that growth.

Two hundred million dollars is a substantial sum to invest in the future of anything, particularly in mortal man's bid to conquer the frontier of time and space. However, the officials of New York have taken this courageous step and such has been the progress of construction even during the war that the largest planes are now able to alight at Idlewild. It will be eight or 10 years, however, before the great airport will be finally completed.

Immediately after the outbreak of the war on December 7, 1941, Floyd Bennett Airport in the extreme southeastern section of Brooklyn was acquired by the Federal Government. Having anticipated some such Federal action, the City Government had already made surveys looking toward the acquisition of land upon which to build a greater municipal airport that had ever been undertaken. Accordingly, on December 17, 1941, the Board of Estimate voted to acquire, as a beginning, a tract of 1,200 acres on Long Island on the north shore of Jamaica Bay near the eastern boundary of the city. It is 12 miles, as the crow might fly, from the Airlines Terminal at 42nd Street and Park Avenue. The area is immediately adjacent to a system of express highways and parkways radiating east, west and north. These highways in turn connect with the main traffic arteries flowing through all the five boroughs of the greater city, which in itself covers about 300 square miles, and with expressways and roads fanning out into the metropolitan area of eastern Long Island, southern New York State, New Jersey, and Connecticut. In all, about 12,000,000 people are within easy driving distance

of Idlewild. More than 7,500,000 of these are in the five boroughs of New York.

The airport at Idlewild, when complete, will cover more than 4,500 acres. The projected investment by the city will run near the \$200,000,000 figure and may exceed it. Such buildings and runways as are constructed will at all times be the property of New York and the rentals to be paid by the airlines using the facilities will cover interest and amortization

(Continued on page 38)

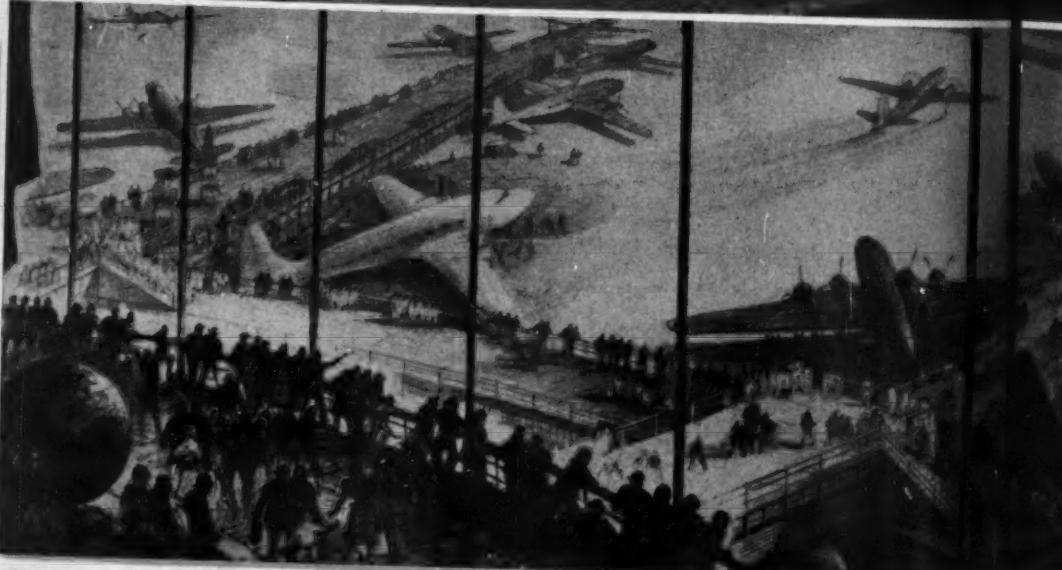
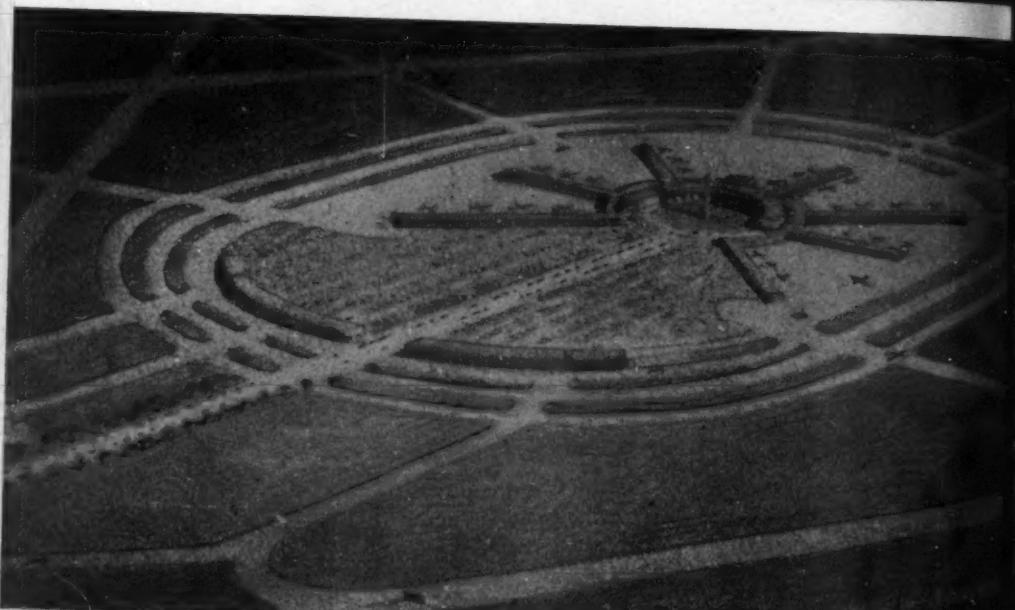


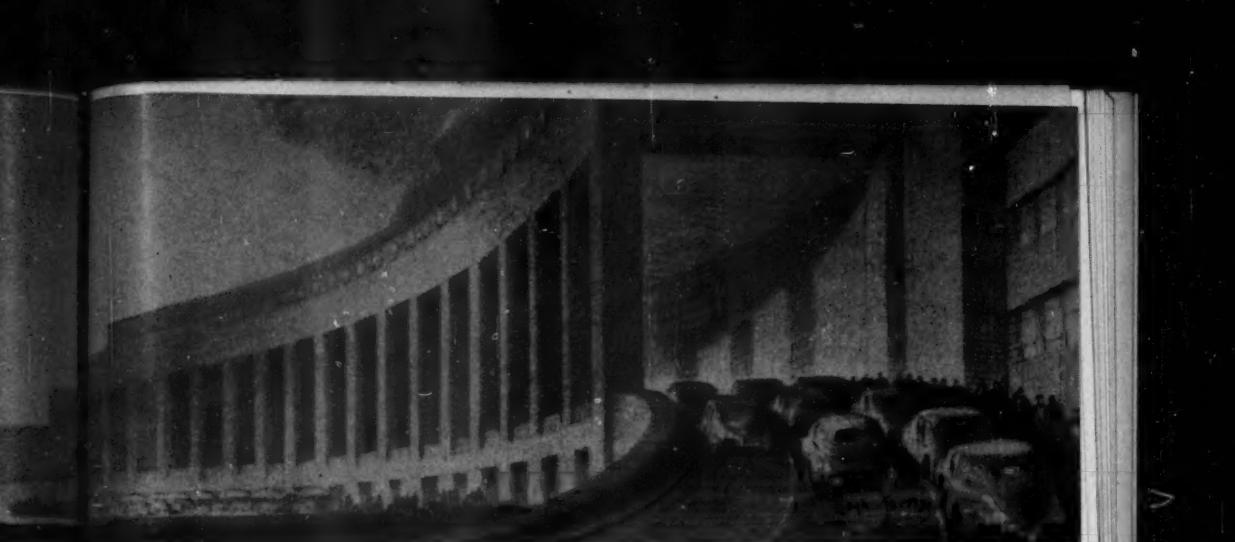
Joseph D. McGoldrick

This is the step-by-step history of Idlewild, written by one whose close association with the world's most ambitious airport project gives authority to the article.

# IDLEWILD

New York's  
Giant Skyway Terminus





● ABOVE—The facade of the Terminal Building, as drawn by Hugh Ferris in consultation with the architects, Delano & Aldrich. All four drawings were made by Ferris.

● LEFT—General view of Idlewild Airport from an elevation of 3,000 feet. More than a dozen airlines have leased space here.

● BELOW LEFT—Visualizing tomorrow's heavy air traffic through the glass-enclosed Public Lounge. More than 172,000 scheduled arrivals are expected in the 1946-47 period, and nearly 700,000 in 1960-61.

● BELOW—A hangar group at what Mayor LaGuardia calls "the finest airport in the world." These will accommodate the largest aircraft in operation over commercial skyways.



of the serial bonds sold to investors to provide the funds needed.

Late in September, 1943, Mayor La Guardia appointed a committee to act for the City in bringing Idlewild to a reality. I was chairman of this committee throughout the negotiations which extended through nearly two years. Also on this committee were Commissioner John McKenzie, of the Marine and Aviation Department of New York; Elmer Haslett, Director of Airports; and Ignatius M. Wilkinson, Corporation Counsel. The latter was assisted by Julius Isaacs, Joseph G. Vickers and Maximilian Bader, Assistant Corporation Counsel. Representing the airlines were John Leslie, Pan American Airways; Amos Culbert, American Airlines; and Arthur Jens, Transcontinental and Western Air.

From the outset the airlines accepted the principle that the city was entitled to recover from the airport a revenue adequate to meet the annual debt service on its investment and its operating costs. In order to determine these it was necessary to have a precise estimate of the costs of the airport improvement and a program for financing these costs. But before these estimates could be arrived at, it was necessary to determine the exact pattern of runways and the character of the terminal area development and the various facilities and utilities necessary for an airport of this size. The determination of the runway-pattern engendered considerable debate. It was finally agreed to seek the opinion of the Civil Aeronautics Authority, which after a careful examination of the matter, concluded: ". . . the Administrator's recommendation is that the airport be planned for tangential runway pattern."

This principle having been accepted by the city, a plan showing the location of the 12 runways which will constitute the ultimate stage of the airport's development was agreed to in April of this year. The plan was signed by a ranking officer of each of the 12 airlines represented in this negotiation, by the members of the Chief Pilots Committee of the airlines and by the members of the Committee on Future Airport Requirements.

Hardly less perplexing was the problem of the pattern of the structure in the terminal area. This has been resolved by the adoption of a design which calls for an arcade structure 15,000 feet in length (two stories high and varying from 40 to 90 feet in width) which will enclose the central portion of the terminal area. The passengers will arrive from various parts of the city by limousine and public bus lines, taxi and their own private cars and pass through the arcade to the plane stations on the apron side of the arcade.

In the approximate center of the area enclosed by this arcade will be the Administration Building which will have a general lobby for airline ticket offices on the first floor, two

large restaurants on the floor above, and several smaller cafeterias or coffee shops on various other floors. The ground floor will be used for mail, baggage and express freight. Two floors above the lobby will be used for office purposes; the fourth floor will house the Civil Aeronautics Authority, the U. S. Weather Bureau and the office of the Department of Marine and Aviation; and on the top floor there will be the control tower from which inbound and outbound plane movements will be directed.

It was obviously necessary to determine all these matters before the engineers and architects could arrive at precise figures of construction costs, and the city authorities could compute its debt service and operating costs. If we confine ourselves, for the moment to the operational area of the field the city will be undertaking the following investment:

Land .....	\$10,400,000
Field improvements .....	62,000,000
Administration building, power house and other structures .....	19,300,000
	\$91,700,000

This does not represent the whole investment for which the city will be obligated. It does not include hangars and other company facilities or the cost of the arcade structure. For the former the city has available for rent to the airlines approximately 1,000 acres of which 709 acres have been rented. On this land the city has agreed to erect such structures as the tenant may wish and the tenant has agreed to amortize this investment by the city. Similarly the arcade structure will be built to order and amortized by the tenant. The 15 leases already signed call for a city investment of \$64,650,000 for hangars and related structures as initial site area improvements and \$16,400,000 for the first 11 sections of the arcade. Since all but two percent of the arcade area is rented by these leases this latter figure will eventually rise to \$20,000,000. When the entire arcade is complete it will represent an investment of approximately \$25,000,000.

Nor do the above figures include approximately 200 acres which the city is reserving for fuel storage, highway, drainage and other purposes, some of which will be substantially remunerative. There will also, of course, be related public improvements which while of some service to the airport are not confined to the users of the airport. These are not included in the calculation of the costs of the airport but we have made a computation of taxes, in computing the amounts which the city is entitled to recover in the determination of its rentals and charges and this, we believe, represents a substantial contribution of air commerce to these general public improvements and municipal services.

One could ask for no better justification of the city's undertaking to build this airport or

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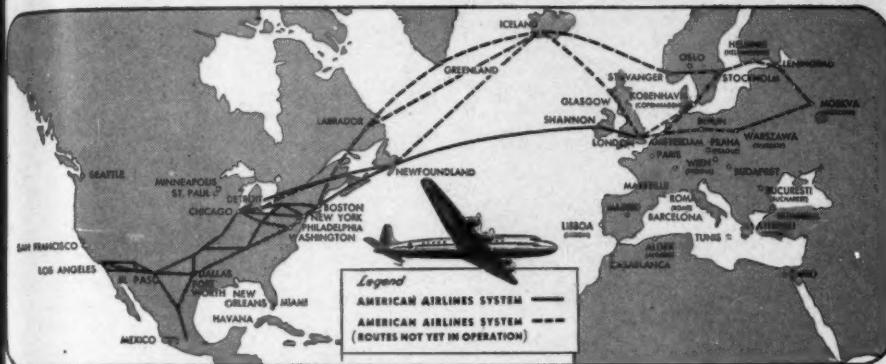
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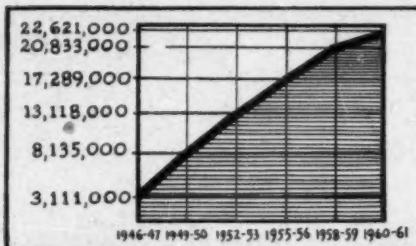
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THE NEXT 15 YEARS—Through and local passengers expected at Idlewild between 1946 and 1961.

of the size and scale upon which it is projected than the willingness of the airlines to assume the substantial obligation involved. In its application one of these tenants tells us that its site area improvements and other space requirements are projected on the calculation that it will have 25,000 employees at the airport. We believe that we are conservative in predicting that the airport will ultimately provide employment for 40,000 to 50,000 people.

It is not possible to project the ultimate total investments which the city will be called on to make for site area improvements, but the leases already signed call for an approximate total of \$90,000,000 for initial site area improvements including \$16,000,000 for initial portions of the arcade. Adding this to the \$91,700,000 investment in the field itself gives a total of \$186,000,000. It may well reach \$200,000,000 and may possibly exceed that sum. But it is the very essence of this lease that any such additional investment shall be entirely self-sustaining and, therefore, neither a burden to the city's taxpayers nor a charge, except temporarily, under the terms of the State Constitution, against the city's debt incurring capacity.

The airport will be developed in three stages. The Initial Stage consisting of three runways, a portion of the central terminal area and a temporary administration building, is now complete and in service. Two small hangars which will ultimately serve as utility buildings are in process of construction and should be available in a month or two.

Engineering plans for the Intermediate Stage (six runways) are already well under way and it should be possible to put these under contract early in 1946. This stage includes not only the three additional runways but the Administration Building and its adjunct Power Plant and Pumping Station, most of the apron in the Central Terminal Area, the main approach highway, parking areas, circumferential service road and, of course, the necessary field lighting and equipment.

For purposes of the computation of the financial analysis it was assumed that the Intermediate Stage will be completed and

ready for service by July 1, 1949. It should be possible to achieve it sooner. By the terms of the lease contract the city undertakes when these facilities are used to 75 percent of their capacity (which is defined as 40,500 landings and take-offs within a 90 day period) to commence the construction of the Final Stage of the airport and complete it within three years.

About \$30,000,000 have been raised so far through the sale of serial bonds. These funds have borne the following rates of interest:

January 15, 1942	.....	\$ 1,092,000 at 2.50%
December 15, 1942	.....	723,000 at 3.00%
August 1, 1944	.....	13,740,000 at 1.75%
January 1, 1945	.....	14,700,000 at 1.75%

\$30,255,000

The actual amortization of a serial bond obviously consists of a constant figure for the installment of principal due each year and interest on the outstanding balance. The bonds for the airport will be one to thirty year serials, i.e. one-thirtieth of principal amount will be payable each year. I assumed for the purposes of calculations a two percent interest cost. This seems reasonably conservative inasmuch as over \$28,000,000 has to date been financed at about 1 1/4 percent.

If the average of the two percent interest cost and one-thirtieth of the principal be taken, an amortization figure of 4.3666 percent is the result.

About 85 percent of the actual land cost for Idlewild Airport was provided by the sale to the Federal Government of Floyd Bennett Airport. The sum paid by the Government for this airport was about \$9,500,000. The actual land cost of Idlewild figures out at slightly over 11 cents per square foot. In view of its accessibility and the fact that the entire airport lies wholly within the borders of New York City, this cost is very moderate indeed.

After determining the expenses to be incurred by the city for the actual cost of the field and the structures and runways to be constructed thereon, it remained to be computed the annual costs of administration, maintenance and operation. These costs were calculated to be approximately as follows:

Annual cost for the Intermediate Stage, including the operation of six runways, approximately \$1,398,000 annually; for the Final Stage, 12 runways, \$2,012,000.

Including these charges, it appears that the city, in order to achieve its goal of operating the airport on a basis that will involve no burden to its taxpayers, must have annual revenues in the Intermediate Stage of \$3,111,200 and in the Final Stage of \$5,488,050. (Both these latter figures, of course, include finance charges.)

The key to the revenue prospects of the airport, and in fact the basic justification for the size and scope of the airport as planned, must lie in its anticipated volume of traffic. In order to determine the traffic prospects at the

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**The Army** can drive 10-wheeled trucks, tanks, and many other units of heavy military equipment right into the spacious hold of the Fairchild "Packet".

**Or bulky cases** can be "walked" from a trailer truck directly onto the floor of this "flying boxcar." (Note: Horizontal "Packet" floor is same height as standard truck floor.)

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1946-47	\$236,100	697,123	\$69,700	\$305,800
1949-50	462,700	2,775,653	277,600	740,300
1952-53	649,500	4,880,833	488,100	1,137,600
1955-56	789,400	6,676,280	667,600	1,457,000
1958-61	921,800	8,198,083	819,800	1,741,600
1960-61	975,900	8,926,644	892,700	1,868,600

new airport it is necessary first to estimate the passenger volume for New York City as a whole which would be shared between La Guardia Field and the new airport.

The Airlines Negotiating Committee submitted traffic estimates indicating the total passenger volume, the number of plane movements these would require, and the division of this activity between La Guardia Field and the new airport. The Department of Marine and Aviation, having examined these figures in the light of the prewar experience at La Guardia Field and other available guidance, believes that we are justified in accepting these estimates as the basis of our calculations of airport revenue and operating expense.

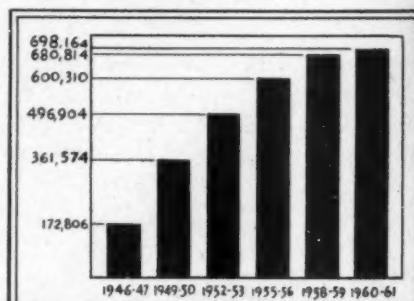
Illustrating this article are graphs of traffic estimates submitted by the Airlines Negotiating Committee. These figures are based in part on the very size and pattern of the airfield itself. The runways are so laid out as to permit the simultaneous use of three runways for landing and three for take-off. This in itself gives the new airport a capacity six times that of La Guardia Field. Moreover, the wartime development of radar, now revealed to the general public, gives ample assurance that this, and all other airports, will be in the very near future, virtually "all weather" airports. This factor alone would augment the capacity of an airport in New York by possibly 10 percent. Finally, it may be well to point out that these figures were prepared in mid-July when the only tenable assumption was that the war with Japan would continue for at least a year. With that titanic struggle now happily ended and our whole nation already turning its attention to peacetime activity in every field, it is not too much to suggest that the time factor involved in these calculations could logically be advanced by upwards of a year.

There are in all 10 principal sources of revenue upon which our calculations for the new airport can be based. Among these the ground and space rentals in the 12 pending leases become a fixed, definite continuing item. Others, like the revenue from flight fees or from concessions, are largely dependent upon the upward curve of passenger volume at the airport. The most important single source of revenue will be the activity fees.

These fees follow the pattern established in the La Guardia Field leases, but they are approximately 25 percent higher than the La Guardia Field schedule fees. Closely related to these is the fee charged for the transportation of passengers to and from the airport by chartered limousine. The airlines are given the right to carry their passengers themselves or have them carried by a contractor of their choice, but the city is to receive 10 percent of the charge made or 10 cents per passenger, whichever may be greater.

A brief summary of the revenue prospects from these two sources will be found elsewhere on this page. Next in importance to these sources of revenue will be the rentals from the hangar site areas, fuel storage areas, arcade area and space rented in the permanent terminal building.

It was no light matter to propose that a city, even the great City of New York, pledge its credit to the extent of \$175,000,000 to \$200,000,000 in an undertaking of this magnitude. The foregoing analysis of the financial aspects of this huge investment indicates that though we are adventurous yet we are prudent. No longer do we regard air commerce as an infant. If it has not yet arrived at maturity, *(Continued on page 61)*



**IDLEWILD ANTICIPATES**—Annual number of scheduled arrivals and departures during the 1946-1961 period.

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# THE AIRSHIP'S SIDE OF THE STORY

*What about the airship? How can it be applied to air transportation in this new postwar era? What does it offer in place of speed? How will it rank as a cargo air carrier or as a "hotel of the skies"? These and other questions are ably discussed by the author.*



By JAMES N. BLISSELL  
Chief of Airship Section, New Projects Division  
GOODYEAR AIRCRAFT CORPORATION

ANY studied consideration of the progress of civilization clearly reveals that man's advances have been closely allied with his utilization of improvements in form of transportation and communication. Within the memories of thousands there was a time when man's communication with fellow man was limited to a day's journey in a buggy; his conversation, information and entertainment restricted to Bell's great invention, the telephone.

Because some men had imagination, foresight and fortitude, today the flick of a switch brings light, sound and comforts; streamlined trains and almost supersonic speed airplanes whisk us from border to border and through the blue across the seven seas. Mystical and fantastic advances in the field of chemicals, plastics, electricity, and electronics are harbingers of more wondrous things to come. Horizons have been shortened and the world made a more compact place in which to live.

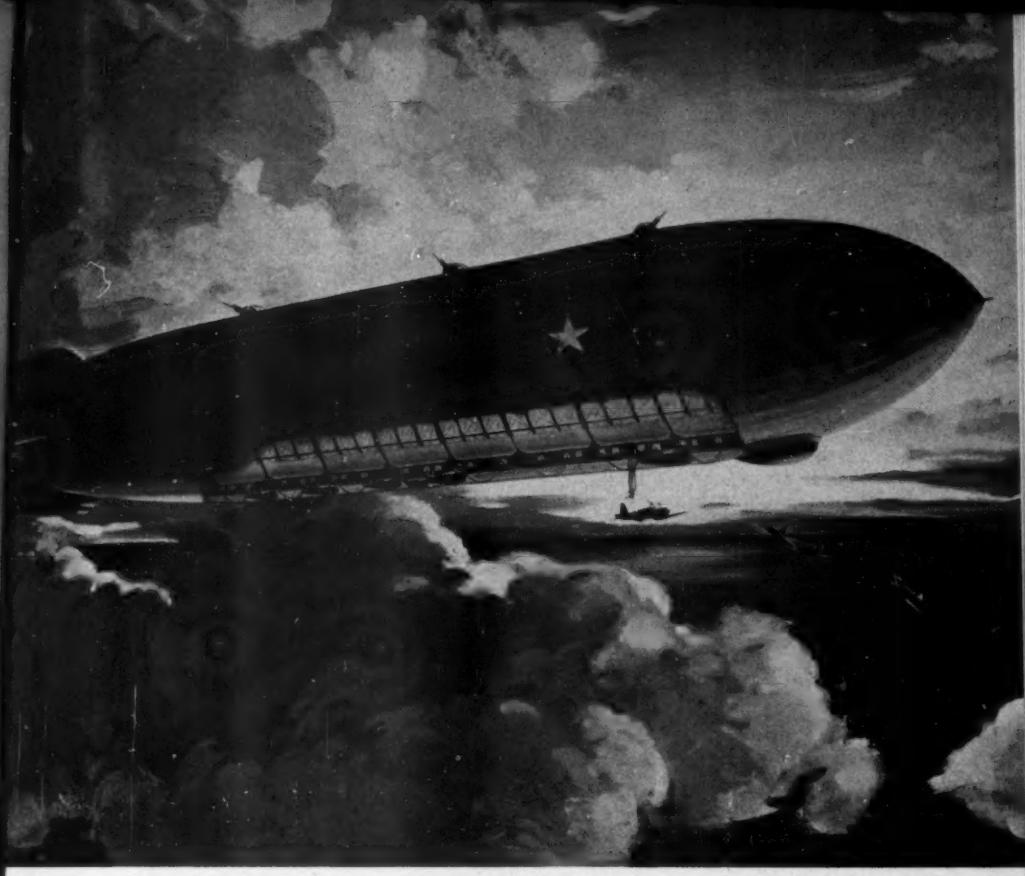
This new set of circumstances brings new and strange conditions. As we in the Flying Forties cross the threshold to the great Air Age and man shatters the shackles of surface travel, it well behooves us, individually and as a nation, to see that nothing is left undone that will serve to make us great in the skies. In this connection, then, it will be well to weigh what the rigid airship has to offer in rounding out and completing our world-wide transportation system.

First and foremost, it is pertinent to point out that *no one expects or believes the airship will replace or displace the airplane and flying boat*. Rather, proponents of the lighter-than-air science are of the opinion that the airplane, the airship, and the surface carrier,

*all working together*, can accomplish for America what none could do alone.

As our mass production genius brings the cost of planes down to the reach of the average consumer and our creation of ground facilities gives the airplane utility and takes it out of the pleasure field, we literally will live in the air. Great things are in store. Speed and still more speed is the cry. Yet, does it not seem reasonable to admit that our appreciation of speed is based solely on the triumphant deeds of our young aerial Vikings at War? Speed, regardless of the conveyance, is a premium that demands and receives premium payment. On the other hand, it is historically true in the transportation business that everyone who travels is not interested solely in getting from one point to another in a record speed time.

A perusal of reasons why airplane passengers took their first trip proves illuminating. Of a total of 25,000 queried, 23 percent said they wanted to save time and liked the speed; an equal percent gave "curiosity" as their reason and only 16 percent replied they used the airplane because of business. Another 16 percent reported flying for pleasure while making a visit to a distant point and



only five percent utilized the speed of the plane because of an emergency.

Lieutenant Commander William Nelson, USN, in his book, *Seaplane Design*, specifically states: "There is a limit definitely determined by economical phases beyond which the cost of higher speeds is not warranted." Thus, the cost of speed plus the expressed reasons for air travel, would seem to make fallacious the argument that the use of the air will be predicated solely on speed.

Once the advantages of modern improvements are apparent, and they are made available to the masses, enthusiastic acceptance is the result. That is true with air travel as with everything else. Once the airship has been given an opportunity to be fully exploited in commerce, it is a foregone conclusion that it will come to play a large part in our daily lives.

Every commodity on the market cannot move by air because of the price limitations imposed. There will be passengers and cargo willing and eager to pay for speed; there will be travelers and freight to utilize the slow surface steamer. Between those two extremes will come those who desire moderate

speed with comfort, spaciousness and moderate cost—the market to which the rigid airship will prove the natural beacon.

Airship proponents are often asked, "Why not spend the money paid for one airship and get a fleet of airplanes?" This seems like a good question, but one to which the answer becomes self-evident when all the facts are gleaned. The economics of the airship lie fundamentally in the fact that it is a huge-capacity carrier with inherent advantages possessed by nothing else that flies. It starts out with the initial advantage of requiring no power to become airborne. It also has a tremendous lift advantage. Likewise, as the size of the airship increases, its efficiency increases, which is contrary to the law governing heavier-than-air where the useful lift does not increase in proportion to increased size.

Based on past performance records, it is easy to see where the airship fits a category that is peculiarly its own. In order to justify air shipment, commodities should be worth at least two dollars per pound. There are many articles of low density and high bulk which will make natural cargo for the air-

ship. Everything that appears desirable to ship by air will not necessarily be able to bear the impact of cost of heavier-than-air speed shipment.

Historic figures coupled with advances already here, show conclusively that the airship can carry cargo and/or passengers at better than competitive rates as compared with other mediums. This is not to be assumed as ruling out everything else, as there still will be plenty of business for the airplane and surface steamer.

Let us take a look at a hypothetical operation. Such an operation might constitute the transportation of 100 passengers in deluxe style; or as many as 300 passengers with tourist-type accommodations; a combination passenger and cargo ship; or one designed solely for the transportation of cargo.

For the purpose of illustration, let us assume a transpacific operation from San Francisco to Honolulu—a distance of approximately 2,500 statute miles. On such an operation,

pounds gross weight in the matter of total payload moved.

Because of the vast space available, it is possible to build into the rigid airship many appointments that are not possible on anything except the finest deluxe ocean liner. In travel, it has been found to be axiomatic that whereas price is the first ruling factor in choice of medium, comfort is the next. The airship offers deluxe comfort at an appealing price.

Contemplation, for example, of the 100-passenger rigid airship envisions a "hotel of the skies" with private staterooms, hot and cold running water, music room, luxurious lounges and freshly prepared meals en route. Ability to move about because of the space available is one of the outstanding features of a rigid airship. Passengers are not required to remain stationary in their seats but may move about the ship at will in flight.

There is no sudden acceleration or deceleration to perturb the timid; there is no sense

*"First and foremost, it is pertinent to point out that no one expects or believes the airship will replace or displace the airplane and flying boat. Rather, proponents of the lighter-than-air science are of the opinion that the airplane, the airship, and the surface carrier, all working together, can accomplish for America what none could do alone."*

the rigid airship could carry 180,000 pounds at an average speed of 75 miles per hour, at a rate of nine or ten cents per ton mile. Passenger fares in the immediate postwar era are estimated in the neighborhood of five cents with further reductions indicated as additional units are employed and operating efficiencies effected. As a matter of fact, the 10 million cubic feet rigid could carry nonstop 100,000 pounds for 7,000 miles, at a rate of only 17 or 18 cents per ton mile.

These figures are the result of extensive studies and are all-encompassing in that they take into account every cost affecting an operation both direct and indirect, provide for amortization of loans, depreciation of equipment, replacement, insurance, fuel, crew and service personnel costs, baggage and passenger liability insurance, etc.

The airship, being primarily a large capacity carrier, the initial cost is large in comparison with that necessarily expended for flying boats and airplanes. However, reckoning both the speed and load factors over any given period of time, it quickly becomes evident that the airship will do the job of six to eight flying boats or airplanes of 175,000

of claustrophobia because of confining space and the oppressive noise from power plants is missing because the propulsion units are so far removed from the passenger accommodations. There are no cases known of seasickness or air sickness aboard rigid airships. Tests made on various vehicles by impartial observers show the rigid airship to be the quietest form of transportation known.

So popular was the appeal of European commercial rigid airships that not only was every flight sold out months in advance, but long waiting lists were established. In a number of instances, passengers were willing to pay full fares and occupy crew accommodations in order to make the flight.

### Soviet Expanding Civil Aviation

Next year will see the expansion of Soviet civil aviation, said Major General Timashev, vice director of the administration of civil aviation, in an interview reported by a Moscow broadcast. Plans include coverage of 35 international airlines and the maintaining of transport on lines linking Moscow with Berlin, Vienna, Prague, Warsaw, Bucharest, Sofia and Belgrade.

## Introducing

# A New Air Cargo Line

By BRIGADIER GENERAL LAWRENCE J. CARR

Chairman, Board of Directors,  
TRANS-CARIBBEAN AIR CARGO LINES

TRANS-CARIBBEAN Air Cargo Lines will serve the useful purpose of developing closer and friendlier relations between the good neighbors of the Western Hemisphere. The company was organized to furnish additional air cargo transportation, thus speeding the flow of trade between the Caribbean area, South America and the United States. The services offered by the Air Cargo Line of the Americas will be an important factor in the broadening of existing inter-American markets. This in turn will be instrumental in encouraging commerce and travel to all points in the Americas.

The war years left their deep marks on the business life of Latin America. Not until after V-J Day, when businessmen in ever-increasing numbers began arriving in this country, could anyone here realize the tremendous and urgent need for goods of all varieties south of the border. For little if anything not highly essential to our own war economy found its way to those countries during the war. The lack of reserves on hand aggravated the shortages. The requirement for goods is so vital today that invariably the orders of these neighboring businessmen are to be transported "via air cargo."

But the war also had a salutary effect on the sister American republics. While their economies were geared to war production, employment and wages naturally rose, developing new industries and increasing considerably the standard of living. Thus we anticipate post-war demands from South and Central America far exceeding anything in the past. Trans-Caribbean looks forward to expediting cargo traffic into these areas now as in the future by means of our modern fleet of DC-3 cargo liners.

If we now turn to consider the existing transportation systems of the South American republics, the future of air cargo transportation appears even more astonishing. Natural obstacles throughout South America once made surface transportation impractical and it is significant to note that this continent is two-and-one-half times larger than the United States. Topographical conditions account for the fact that airline mileage already exceeds railroad mileage. The airplane obviously offers the greatest advantage as a means of transportation between the capitals of South America. For example, surface transportation between Rio de Janeiro and Buenos Aires requires six days. By air it only takes seven hours. Bogota, Columbia to Rio de Janeiro, Brazil, is three weeks away by land, but less than two days by plane. Briefly, shippers are only able to break the inland shipping bottleneck by means of air transportation.

Recently Anne Corbett, an assiduous researcher for the Bureau of Foreign and Domestic Commerce, predicted an air cargo potential between the United States and South America totaling 62,892,239 pounds of United

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States exports and 4,312,660 of United States imports per year, and this was based on pre-war figures. (See October, 1945, AIR TRANSPORTATION.)

At Trans-Caribbean we are conscious not only of our promising business possibilities but also of our responsibilities to the public. The Air Cargo Line of the Americas is staffed by a number of top ranking World War II veterans especially trained in aircraft operation and maintenance. Guiding our operational section are executives with years of experience in air cargo transportation. The organization is new, the men operating it are young and the field in which it will compete is in its infancy. Operations to be carried out will have as a primary interest a class of service sensitive to consumer demand and conscious of all its requirements. On the alert for the newest time-saving principles, the company adopted as its first policy one of passing on to the public all savings in the form of lower rates. Air freight charges will be a true reflection of costs. Trans-Caribbean will not limit itself to exploring the broadest avenues of trade, but it will endeavor to pave these avenues with solid business principles of economy.

### Military Version of DC-8 Establishes West-East Mark

Last month AIR TRANSPORTATION reported on the Douglas *Skybus* (DC-8), hailed as a transport capable of a speed 50 percent greater than the standard DC-3, and carrying twice as many passengers at a much lower per-passenger operating cost. The plane, having motorless wings, was actuated by twin counter-rotating propeller screws astern of the fuselage.

This month was hardly a week old when the Douglas XB-42, military version of the *Skybus*, flashed across the continent in five hours, 17 minutes, and 34 seconds, ripping 46 minutes off the West-East record. The 2,295-

**SET FOR A RECORD—**  
The Douglas XB-42, military version of the DC-8, which cut the West-East record by 46 minutes.



mile flight from Long Beach, California, to Washington, D. C., was made at an average of 432 miles an hour, piloted by Lieutenant Colonel H. E. Warden and Captain Glenn W. Edwards.

The plane has two Allison 12-cylinder in-line engines inside the fuselage. They transmit power to the two Curtiss propellers through long drive shafts.

### CAB Cites Big Increases By 19 Domestic Airlines

The Civil Aeronautics Board has announced that the mail ton-miles flown by the 19 domestic airlines for the nine-month period ending September 30, 1945, increased 40.21 percent, and express ton-miles increased 43.93 percent over the corresponding period in 1944; and that revenue miles increased 53.36 percent. The number of revenue passenger-miles increased 55.93 percent as compared with the corresponding nine-month period a year ago.

The airlines flew 94.85 percent of their scheduled mileage in the first nine months of this year. Of the 19.58 average available seats per mile, about 88.70 percent were occupied by revenue passengers, as compared with 19.02 average available seats of which 90.14 percent were occupied by revenue passengers for the corresponding nine months last year.

The average airplane load on the commercial airlines during the first nine months of this year was 17.37 passengers, 684.3 pounds of mail, and 229.4 pounds of express, as compared with 17.15 passengers, 747.7 pounds of mail, and 244.3 pounds of express for the corresponding period in 1944.

### Greece-U.S. Air Pact

A preliminary 60-day agreement, providing for transportation of passengers and mail between New York and Athens via London and Paris, was signed this month by Greece and the United States.

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# Idlewild Airport And The Port of New York

By JAMES C. BUCKLEY

Chief, Bureau of Planning and Statistics  
THE PORT OF NEW YORK AUTHORITY

**I**N Idlewild, the Port of New York has the tool to maintain in air its traditional leadership in US-flag overseas commerce. Here, the Port of New York has an Air Age terminal equal in efficiency to its outstanding facilities for the handling of trade and travel by surface carrier. Moreover, this airport is neither too little nor too late. Its size and equipment make it available for use by the most advanced planes and for such future types as may now be foreseen. It can handle a great part of the air traffic potential now contemplated for the Port of New York. It could not have been planned for more timely use.

Of course, it takes far more than the most modern airport facilities to attract air traffic. But where, as in the Port of New York, the richest traffic potentialities do exist, adequate airport facilities are essential to assume full development of that potential.

Estimates by the Port of New York Authority of the annual outbound international air traffic at New York in the next year or two are 135,000 passengers, 3,300,000 pounds of mail and 16,400,000 pounds of freight. Inbound should be about the same. Though conservative, these predictions mean an average of 12 overseas flights per day in each direction if one assumes the use of 50-passenger planes at 60 percent load factor. To reach these conclusions concerning the Port of New York's future one does not have to build air castles; the foundations are in fact. These figures are solidly based on demonstrated performance.

The Port of New York has always been the nation's outstanding generating and dispatching center for overseas traffic. With only eight percent of the national population, the Port normally accounts for more than 40 percent of the value of United States foreign

trade, about 75 percent of United States overseas letter mail dispatched by sea, and about two-thirds of United States waterborne overseas passenger traffic.

Yet, with the recent inauguration of direct air service between European points and United States inland termini, prophets of gloom envision grass growing on the sidewalks of New York as United States foreign trade and travel bypasses the port and wings on to airfields in Illinois, Iowa, and Idaho. They forget that New York today is more than a great traffic-dispatching point. A very substantial portion of the overseas trade and travel accommodated by the Port originates in the New York area. About 40 percent of United States foreign travelers are residents of New York, New Jersey, and Connecticut, and 55 percent are residents of the nine Northeastern states. Almost half of the foreign mail to all countries in the world originates in the New York City and Brooklyn postoffices. About one-half of the foreign trade moving through the Port of New York is local traffic handled by truck or local lighter and not by rail.

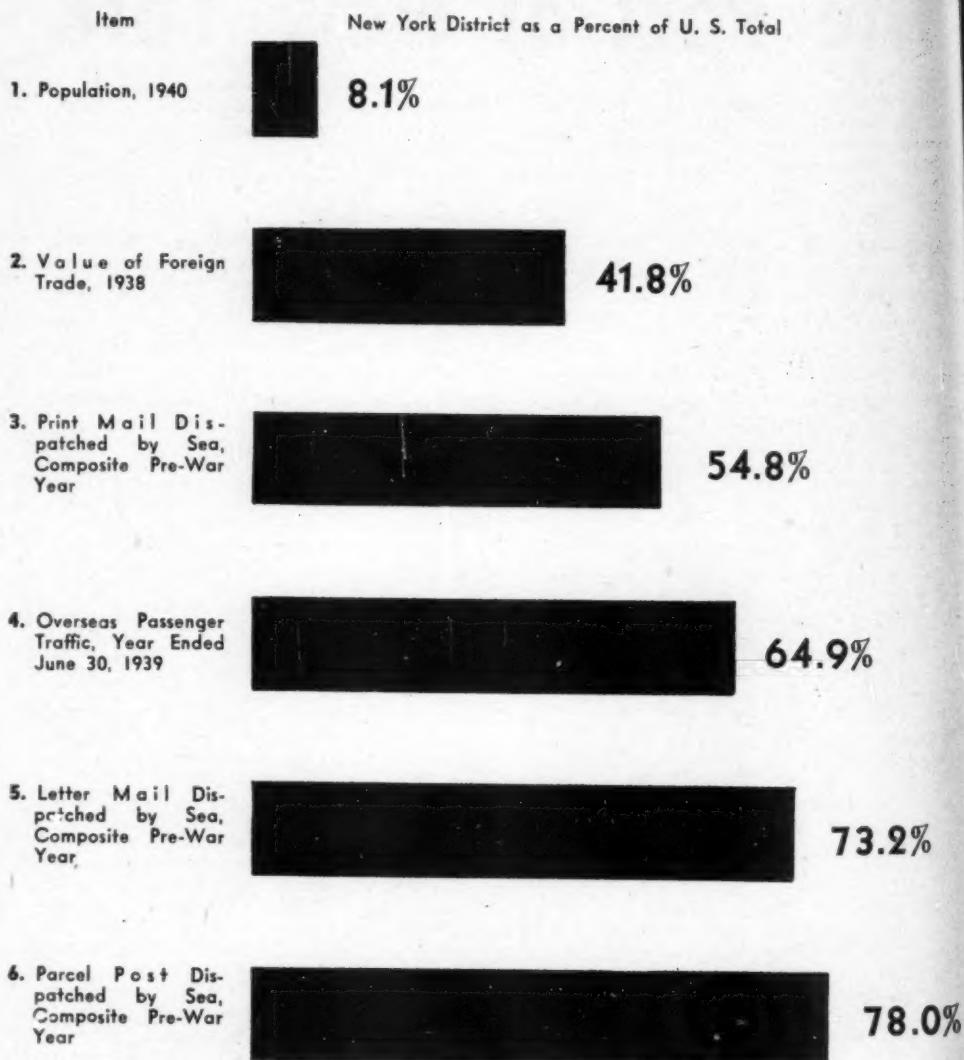
So if *all* overseas trade and travel could move economically and efficiently by air, New York would still remain the nation's principal overseas traffic center because of its overwhelming importance as a generator of air-traffic potential. As pointed out in the Civil Aeronautics Board international air route hearings, the New York district has on its doorstep air traffic potential adequate to support a system of international air trade routes radiating to every part of the world.

But all overseas trade and travel cannot



## IMPORTANCE OF NEW YORK DISTRICT AS AN INTERNATIONAL TRAFFIC DISPATCHING CENTER

The New York District, with only 8.1% of the Nation's Population, Accounts for the Following Percentages of International Traffic, Compared to U. S. Totals



### Sources:

1. Census of 1940
2. Foreign Commerce and Navigation of the United States, 1938
3. Statistical Abstract of the United States, 1942.
4. C. A. B. Survey of U. S. Overseas Mail
5. C. A. B. Survey of U. S. Overseas Mail
6. C. A. B. Survey of U. S. Overseas Mail

move economically and efficiently by air. International air transport will *supplement* rather than *supplant* overseas commerce by surface carrier. While passengers, mail, and high-value freight may move almost entirely by air, the *bulk* of the world's goods will continue to be transported by surface carrier. This means that the concentration of merchandise moving in overseas trade will continue to be at the nation's ports with the multitude of ancillary services necessary to the successful conduct of overseas commerce.

Such reassurance is comforting to the 250,000 persons whose livelihood depends on the waterborne commerce of the New York Port. But it is defendable only if the port is able now—at the inception of the Air Age—to offer trade and commerce a complete assortment of transportation services including nation-wide and world-wide air services. For there is an intimate relationship between trade by surface carriers and trade and travel by air. They are integral parts of the same whole, not separate and distinct universes.

The Port of New York is able to offer the supplementary and complementary international air services which trade now demands. Every area in the country which hopes to be a major trade center must do the same. The foresight of the City of New York under the leadership of Mayor LaGuardia in providing Idlewild Airport makes it possible for the Port of New York to offer these air services now—not in a year or two at the earliest as many

other cities must do. Today in New York all types of aircraft may use the field because Idlewild is adequate to accommodate them. Here a facility has been provided which is ahead of and ready to meet the demand.

The availability of the great Idlewild Airport undoubtedly will facilitate the expansion of peacetime trade through the Port of New York and contribute to the orderly conversion of the port. Importers and exporters can begin now to work out, on a practical basis, at the Port of New York, the tie-in between air and surface transportation in the conduct of overseas commerce. Freight forwarders and customs house brokers of the Port of New York, with a backlog of income from surface operations, can begin *now* to test the market for their services in international air transportation. The banks of the Port of New York, whose stake in foreign trade carried by surface transportation has justified the establishment of branches throughout the world, can begin now to integrate the transmission of documents by air with the movement of goods by surface carrier.

The existence of Idlewild as a going concern today and the availability of additional large and modern airports in the New York-New Jersey area, assures a complete and immediate development of the port's trade by all modes of transportation. The Port of New York can meet the international trade needs of 1946 with 1946-model facilities.

### TACA Appointing Agents Among U. S. Freight Forwarders

According to Wesley J. Wilson, general traffic manager of the TACA Airways System, the company "is going on with its old tradition and appoint agents among the foreign freight forwarders in the United States." The commission, he said, will be "7½ percent of the actual transportation costs—enough to justify active solicitation of air express shipments."

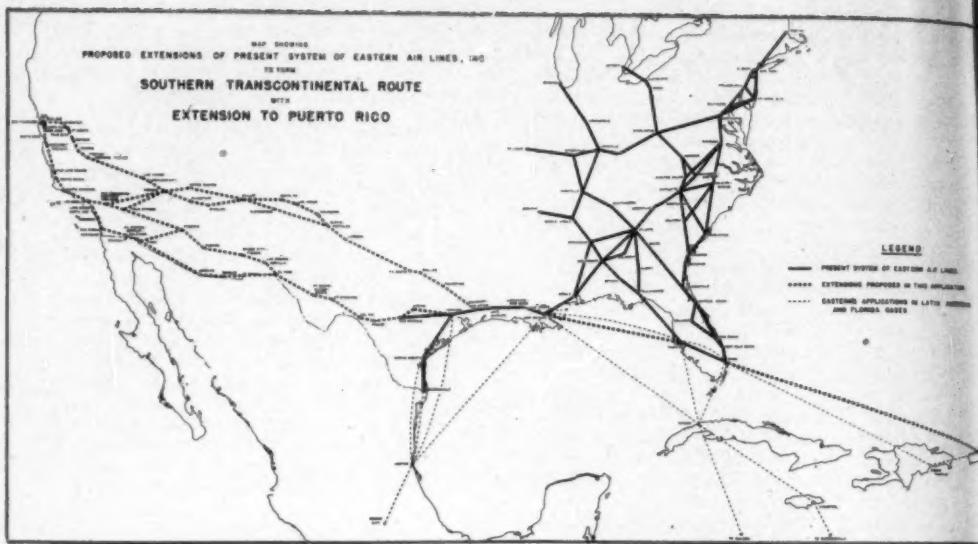
Declaring that "everyone in transportation

knows that the freight forwarder fills a vital need, not only to the shipper but to the carrier as well," Wilson pointed out that TACA has always depended on its agents in the Latin Americas to produce business for them." The results were astounding, he said—so much, that the system carried three times as much cargo as all the domestic airlines in the United States.

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**EASTERN'S PROPOSED ROUTE**—Eastern Air Lines has applied to the Civil Aeronautics Board for approval to extend its present air transport system to the Pacific Coast via an "All-Southern Transcontinent Route." Included in this application was EAL's proposal to connect directly the major Gulf Coast and Florida cities with San Juan, Puerto Rico. The new transcontinental route for which EAL has applied would include two major routings to the West with stops at 60 cities: the first, a Southern route extending from the company's present Western terminus at San Antonio, to San Diego, Los Angeles and San Francisco, and a Northern branch starting at Beaumont-Port Arthur, Texas, and extending to San Francisco via Dallas and Fort Worth. At San Diego, Los Angeles and San Francisco, the new coast-to-coast service would make air connections for the Pacific Islands and the Orient, while at Miami and San Juan connections would be available to South America, African, and Mediterranean countries.

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# IDLEWILD'S AISLE OF LIGHT

**A**N "aisle of light"—two towering walls of light flanking a broad concrete runway 8,400 feet long—will be one of the spectacular new aids that will make Idlewild Municipal Airport, New York City's gigantic new landing field, an "all weather" haven for pilots of transcontinental and world-flying aircraft. The new lighting technique, combined with radar-radio instrument landing equipment and other war-developed blind flying aids is being recruited by the municipal airport officials to assist the airlines in maintaining precise arrival and departure schedules despite the worst flying weather the Atlantic Seaboard can produce.

"The airlines are confident they will be able to maintain their schedules and safety records regardless of weather conditions," Jay Downer, engineer of the airport, pointed out, "because the Idlewild Airport will provide heavy-duty runways with extensive, cleared aprons for instrument approach, radio and radar aids, and revolutionary lighting techniques."

Composed of two curtains of light shooting skyward, the "aisle of light" was developed in conjunction with Westinghouse Electric Corporation lighting engineers. The idea, never before utilized as a landing aid, was submitted to New York City airport officials by Adam Kopf, lighting expert of the office of Edward A. Sears, electrical consultants, engaged by Jay Downer for the Idlewild project.

Kopf conceived the idea of two parallel walls of light being used to outline a runway for pilots in soupy weather from previous experience in theatrical lighting. He cited the use of a curtain of light at Jones Beach State Park Amphitheatre, to mask the stage from the audience during water show scene changes as the inspiration for the landing aid.

W. A. Pennow, head of the Aviation and Marine Lighting Section of Westinghouse's Lighting Division at Cleveland, supervised the transformation of Mr. Kopf's idea into actual electrical fixtures for use on the runway.

The "aisle of light," by far the most spectacular type of runway lighting ever devised by airport designers, is in marked contrast to the usual runway marker lights that look to incoming pilots like illuminated dots on the runway edge, Pennow pointed out. The new landing guide is so planned that the approaching pilot will see the runway as a dark area between twin sheets of controlled light that shoot upward without glaring in his eyes.

Each unit of the new system of landing lights will include a 300-watt sealed-beam floodlight with a prismatic lens which will fan out light parallel to the runway. The units will be spaced 200 feet apart according to present plans, with provisions for 100-foot spacings in the future. The fanning effect will create an interlocked wall of light a short

distance above the runway. The floodlight unit will have a contact light mounted on the same base, so that the Kopf-designed "aisle of light" can be used for periods of bad weather, but in good visibility normal runway lighting will be available.

"Lighting at the Idlewild field presents a basic change in airport illumination ideas," Kopf said, "since elevated fixtures are being used for the threshold and runway lights. Green threshold lights, stretched across the ends of the runway, to inform the pilot that runway surface is imminent, will be placed 15 feet from the end of the runway, and like the runway lights proper, will be raised 15 inches above the surface. Aside from simplifying the maintenance problem, this arrangement will facilitate snow removal and control of drifting sand. The landing aid will use 30,000 watts of light, more than four times the light intensity used for the standard runways in service today."

"The mammoth size of this new airport can readily be envisioned," Pennow stated, "if one realizes that the ultimate lighting requirements for this one runway are equal to all the lighting requirements for the large airports now in the New York area—LaGuardia, Floyd Bennett, and Newark."

The "aisle of light" runway will have four 3,000-watt floodlights a green arrow and red cross neon light traffic approach signal, and a newly developed smoke generator at each of its ends. The "aisle of light" projectors are placed at each side throughout the length of the runway. Pennow explained that the green arrow and red cross neon approach lights are used to give landing signals to pilots of incoming planes. The green arrow is the traditional 'go ahead' signal and the flashing red cross is the emergency light to warn the pilot that he cannot land. These lights have high visibility to all planes in the traffic pattern. The shaft of the arrow is 83 feet long and the red cross is 83 feet in width and in length."

Smoke generators will produce a column of smoke to show wind characteristics directly on the runway, are easily seen by day, and at night are lighted by the runway floodlights.

# Histories in a Nutshell

*They say that air transportation is an infant industry. If that's true, then the infant is of gargantuan proportions and wears seven-league boots. For example, look at the records of these airlines planning to use Idlewild's facilities.*



AMERICAN AIRLINES was incorporated on May 13, 1934, although its history goes back to the original Bee Line which was organized in 1923. Today American is the largest domestic airline in the United States and the second largest international carrier in the world. In the 11 years that it has been flying as American Airlines, Inc., the company has flown over 250 million plane miles. Added to this impressive record are the more than 39 million miles the company has flown since April, 1942, when it entered into contract operations with the Air Transport Command. In the three years of ATC operations, American flew vital war cargo—mostly ammunition and supplies—to every continent on the globe.

It was the first airline to fly over a million passengers and the first to fly over one million in a single year. Close to 10,000 employees are on the AA payroll. This 10,000 figure is expected to be expanded to 40,000 within the next few years.

On July 5 of this year, the CAB approved the purchase of American Export Airlines by American and granted the company transatlantic routes to Labrador, Greenland, Iceland, Glasgow, Stavanger, Oslo, Stockholm, Leningrad, Moscow, Warsaw, Berlin, Amsterdam, London, Copenhagen, Foynes, and Newfoundland. American has on order with the Douglas Aircraft Company 50 DC-6s and 25 DC-4s at a cost of \$41,000,000. C. R. Smith, chairman of the board, predicts a fleet of 1,000 planes for American Airlines within five years. American Airlines also inaugurated *Airfreight* in October, 1944, and became the first airline to introduce this service to businessmen.

AMERICAN EXPORT AIRLINES (now American Overseas Airlines) instituted the first non-stop transatlantic commercial air service June 20, 1942, following more than five years of study, preparation, and survey flights. The 30-ton four-engine Vought-Sikorsky *Flying Aces* used in this service brought a new concept of international aviation; aircraft capable of flying non-stop across the Atlantic with deluxe accommodations for passengers and ample space for mail and cargo.

Since June of 1942 the *Flying Aces* have been making regularly scheduled commercial flights, summer and winter, across the North Atlantic to Foynes, Eire with direct connections to London and now also to the continent. They have also maintained routes across the South Atlantic between Africa and South America. These aircraft hold all commercial speed records across the North and South Atlantic on scheduled flights carrying capacity payloads and in excess of 3100 miles.

In addition to this certificated service, the company operated a fleet of *Coronados* and *Mariners* for the Naval Air Transport Service to points in the United Kingdom and Africa across both the North and South Atlantic, as well as to a number of off-shore islands and points on the east coast of South America. Before this contract was terminated at the end of 1944, a contract had been signed with the Air Transport Command under which American Export ~~operates~~ a fleet of C-54 *Skymasters* in daily service between New York and the United Kingdom and weekly service between New York and Stockholm.

The Civil Aeronautics Board on July 5, 1945, granted the airline lines two routes over the North Atlantic and, at the same time, approved acquisition by American Airlines of 51 percent of the stock of American Export Airlines. The combination of the two companies under the American Airlines System formed the first air transportation system of its kind in the world by providing one-system service by air all the way through from inland and coastal cities of the North American Continent to cities of the British Isles and Europe.

Under the routes granted American Export, the system will soon be operating across the

North Atlantic from New York, Boston, Philadelphia, Washington, Detroit and Chicago in the United States via Labrador, Greenland and Iceland to Stavanger, Stockholm, Helsinki, Leningrad and Moscow; also via Newfoundland and the Azores to Foynes, Glasgow, London, Amsterdam, Copenhagen, Berlin, Warsaw and Moscow.



**S**INCE its inception on April 1, 1940, the British Overseas Airways Corporation has been entirely engaged in war service, carrying food and supplies into many major campaigns.

In the five years ending March 31, 1945, its aircraft have flown more than 55,000,000 miles, and have carried over 271,000 passengers on urgent war journeys, together with nearly 29,120,000 pounds of mail. The number of passengers had increased from 19,800 in the first year, to almost 100,000 by the end of this period, and the fleet had more than doubled, with 150 planes now in service.

In 1944-45, the corporation's aircraft flew 20,000,000 miles, more than four times as much as the 1940-41 figure of 4,874,054 miles, while cargo carried by BOAC grew from 1,003,520 pounds to 13,137,600 pounds, and mails jumped to 6,097,280 pounds.

The corporation operates about 55,000 miles of routes. Regular services have been continuously maintained to and from England to South Africa, North Africa and West Africa, as well as along the transafrican route from Lagos to Khartoum. Several times a week aircraft leave England for India, there to connect with the service operated by Qantas Empire Airways, an associate company, to Australia. This service is a high speed mail service carrying a limited number of passengers by Lancastrian aircraft and flies through to New Zealand in approximately 86 hours. Radiating from Cairo, there has been built up a network of services throughout the Middle East to Turkey, Persia, Abyssinia, Southern Arabia, and many other countries, to which BOAC carries the sky-blue Ensign of the British Merchant Air Service. In Europe it flies to Madrid, Lisbon and Stockholm.

Since 1940, British Overseas Airways men, many of whom have from 10 to 25 years' service in civil air transport, have achieved the conquest of the North Atlantic which, until then, had never been flown in winter; they operate the only two-way North Atlantic service of any nation that has run through four winters in addition to a flying boat service from Baltimore.



**T**HE present administration headed by Sigmund Janas, president, took control of Colonial Airlines in 1938, and it was at that time that obsolete planes were replaced by modern DC-3s and standard procedures of operations and administration inaugurated. Traffic gains were the greatest in the industry. In 1938 approximately 4,100 passengers were carried between New York and Montreal, and that figure was multiplied until 56,032 were carried in 1944 with 11,531 carried in August of this year alone.

Colonial has pioneered in the aviation field and has a long line of firsts to their credit. It is the first and oldest international air mail carrier, and all of the ships still bear the marking F.A.M. I. In 1940 Colonial's management, recognizing the tremendous potential in sports travel, decided to operate ski planes between New York and the winter sportsland in Vermont and the Laurentian Mountains to the north of Montreal. The trade was exploited and now, during the first postwar winter many skiers are already taking advantage of the two-hour trip to the best slopes in the East.

Shortly after Pearl Harbor Colonial gave unstintingly of their planes and personnel to the Air Transport Command and continued their record-making steps. Flying schools were operated at Albany for the transition of pilots from single engine to multi-engine craft and a mechanic's training school was run at La Guardia Field. Air cargo routes were flown throughout the New England States and as far west as Chicago.

Now, with an excellent safety and service background, Colonial is looking to a bright future as one of the leading carriers in the country. Applications are pending before the Civil Aeronautics Board for new routes, and routes that have already been authorized will shortly be flown by Colonial *Sky Cruisers*. New York-Ottawa was started recently and it is expected that Ottawa-Washington service will commence on or about February 1.



THE extensive Eastern Air Lines system, serving 60 major cities on air routes extending thousands of miles in the eastern half of the United States, has grown in less than two decades from an original route of 792 miles serving eight cities between New York and Atlanta.

Eastern had its inception as Pitcairn Aviation, Inc., which began operation of an air mail service on May 1, 1928, with 8 Pitcairn *Mailwings*. By 1930, the air route mileage had increased to 1,544 miles, the company's name had been changed to Eastern Air Transport, and air passenger service inaugurated.

Captain Eddie Rickenbacker, president and general manager of Eastern Air Lines and World War I ace of aces, became associated with the airline in 1933 when North American Aviation took over the company. The company's present name was adopted in 1934 after all air mail contracts were cancelled. EAL was known as Eastern Air Lines, Operating Division of North American Aviation until 1938 when Rickenbacker and his associates formed the present independent company known as Eastern Air Lines, Inc. The route mileage then was 4,518 miles and 3,158,253 pounds of air mail and 162,246 passengers were being flown in 20 Douglas planes.

Continuing expansion through 1941 and the beginning of World War II saw the Great Silver Fleet of 43 Douglas DC-3s carrying 6,126,893 pounds of air mail, 482,648 passengers, and 1,723,909 pounds of air express.

The steady progress and expansion of EAL was not impeded by the ensuing war years. To help prosecute the war, EAL turned over to the Government half of the planes it had in operation and all those it had on order so that in 1943 EAL was operating only 20 DC-3s, but increasing its service—as evidenced by the 1943 figures: 14,230,000 pounds of mail, 4,500,000 pounds of air express, and 215,352,643 revenue passenger miles were flown.

EAL's Military Transport Division, manned by EAL personnel in ATC uniforms, aided the war effort by flying a 6638-mile route carrying high priority personnel and cargo from Miami to Brazil and Africa. From 1942 to May, 1945, the distance flown was 30,500,000 miles, with 46,000,000 pounds of cargo and 115,000 passengers carried.

NATIONAL AIRLINES started in business with its first regularly scheduled flight on October 15, 1934, with a two-place Ryan monoplane on a 292-mile route between St. Petersburg and Daytona Beach, Florida. Forty days after, service was extended to Jacksonville. By early 1935, business had increased so encouragingly that two tri-motored, eight-passenger Stinsons were acquired. By the end of the year there were three of these Stinsons.

The winter of 1936-37 brought still further expansion. A twice-weekly service was started between St. Petersburg and Miami; and in July, 1937, the Post Office Department authorized a daily service for mail between these two cities on a route that provided for stops in Sarasota and Fort Myers. In September of 1937, the line took delivery on a 10-place Lockheed *Electra*. The faster plane spurred



business to the extent that three more of the same type of plane were added the following June. Meanwhile, National was given an okay to fly a new route between Jacksonville and New Orleans by way of Tallahassee, Marianna, Pensacola, Mobile and Gulfport.

Other expansion and other entries in the schedule of flights followed, one after another, through the years before World War II. In November, 1939, the second daily round trip was added on the run from Miami to St. Petersburg. By May of the following year, Jacksonville was the northern terminus along the west coast route. The aggregate network made possible continuous service between Miami and New Orleans.

While National was expanding itself in the air, its facilities for handling planes and passengers and cargo on the ground were also growing. At the Jacksonville Municipal Airport, home field for National Airlines, a new \$100,000 hangar was built to house both the maintenance department and general plants were installed. Luxurious accommodations for passengers were provided and cargo handling equipment was obtained.

Three Lockheed *Lodestars* joined the line in 1940. Last year saw National inaugurate service from Miami to Key West, making this the furthest south of any airline on this continent.

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A few months later, they inaugurated service into the Palm Beaches. Then followed inauguration of service into Sarasota-Bradenton, making available passenger and cargo service into this rich winter vegetable, citrus fruit and tourist area. On October 1st service from Florida and New Orleans into New York City was inaugurated.

On April 11, 1945, National announced the purchase of the Caribbean-Atlantic Airlines, Inc., subject to approval of the Civil Aeronautics Board. NAL inaugurated service into Philadelphia and Charleston July 1, also resuming air service into St. Petersburg on that date.



**N**ORTHEAST AIRLINES has operated scheduled service from Boston to Maine, New Hampshire, Vermont and Eastern Canada continuously since August 11, 1933, when a group of aviation pioneers—including Northeast's president, Paul F. Collins—opened business in Boston with three used tri-motored Stinsons and \$10,000.

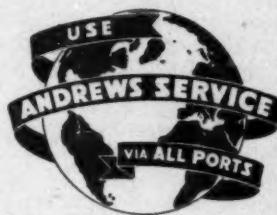
Northeast regards itself as the "Wings of New England" and its progress in New England has been steady, despite the limited flight equipment available during the war. In May, 1945, nonstop Boston-to-New York service was opened. NEA now operates routes from New York to Boston, Portland, Augusta, Bangor, Houlton and Presque Isle; Boston to Bangor, and Moncton, New Brunswick; Boston to New York.

For three years, starting early in 1942, Northeast pioneered and operated cargo routes for the Air Transport Command over the North Atlantic route to Newfoundland, Labrador, Greenland, Iceland, Scotland, and bases above the Arctic Circle. NEA flew 5,500,000 miles for the ATC without mishap.

Veteran officials who have been with Northeast since its early days include President Collins, who started to fly with the U. S. Army in 1917; and Vice President of Operations Milton H. Anderson, chief pilot for NEA from 1933 to 1936.

Two women are prominent in Northeast's history: the late Amelia Earhart, the noted woman flier who was a director and vice-president; and Jacqueline Cochran, former wartime commander of the WASPS and now a NEA director.

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**N**ORTHWEST AIRLINES, the nation's fourth transcontinental air trunk line, has extended its system route by route from its Minneapolis-St. Paul hub to both coasts during the 19 years it has been in existence.

The company, then known as Northwest Airways, was formed in August, 1926, and on October 1, of that year it started operations by flying mail from the Twin Cities to Chicago. Carrying of passengers was begun July 1, 1927.

Northwest crossed the boundary quite early in its career by establishing a line between Minneapolis-St. Paul and Winnipeg in February, 1928. This was discontinued after three months' operation, but was resumed in February, 1931. Other extensions were made from time to time, until on December 3, 1933, it pushed to the West Coast by extending service between Spokane and Seattle. This was accomplished in the face of stiff competitive opposition.

Efforts to reach the Atlantic Seaboard were begun six years ago, but the original applications for the routes were turned down. The flight was kept up, however, under the direction of Croil Hunter, president and general manager, and last December, NWA was granted a certificate to fly into New York by way of Milwaukee and Detroit. Its present and projected domestic and international routes would give it a 30,000-mile network.

Northwest Airlines, the present name of the company, was formed April 16, 1934, and started service under that identity May 24, 1934. The airline inaugurated stewardess service March 1, 1939, with two stewardesses, Dorothy Stumph and Virginia Johnson. It now has more than 100 stewardesses.

In addition to its regular flying, Northwest established and operated a B-24 bomber modification plant at St. Paul airport, where bombers received the final equipment and armament before being flown to the battle fronts. It not only pioneered in this field, in which it had had no previous experience, but it set up methods which later became standard for much of this work. It trained thousands of men and women for specialized jobs, and at its peak had more than 10,000 employed. It has contributed scientists, pilots and other personnel to researches—conducted presently for military purposes—whose results will be available for civilian aviation.

**PAN AMERICAN WORLD AIRWAYS**, became the first United States international overseas airline, when it established schedule operations on the historic flight between Key West, Florida and Havana, Cuba, on October 19, 1927.

From that small beginning, the 90-mile airline, under the leadership of Juan T. Trippe, grew to a globe-girdling network of 98,582 route miles by December 7, 1941. When World War II spread to the Americas, the United States had in Pan American the only air transport system world-wide in scope. The system of the *Flying Clippers* encompassed the Caribbean, Central and South America, while affiliates provided extensive services within the 21 Latin American republics. On the West Coast of South America, Pan American-Grace Airways served the eight great republics from the Canal Zone to Santiago, Chile, and across the Andes to Buenos Aires.

Overseas airways had been pioneered over the North Atlantic to Great Britain and continental Europe, over the South Atlantic to



Africa, southward to the Belgian Congo and northward to Lisbon, linking four continents with high-speed overocean air transport. Across Africa, meanwhile, Pan American had blazed a wartime aerial supply line to the Middle East and the Orient.

Pan American pioneered the Pacific in 1935. An 8,000-mile route was flung across the Pacific from San Francisco to Manila, with Hawaii, Midway, and Guam as stepping stones, later branching out to Hong Kong, Singapore, New Caledonia and New Zealand.

In China, China National Aviation Corporation, operated by Pan American in partnership with the Chinese Government since 1933, provided the only aerial link between Free China and the outside world. In 1944, CNAC flew a total of 10,600,000 plane miles. In Alaska, Pan American has been providing organized air transport under arctic and sub-arctic conditions since 1932.

Military air transport was greatly expanded throughout the war years, during which the airline was the largest air transport contractor to the War Department and the only such contractor to the Navy. During 1944, Africa-Orient Division flew more than two million miles a month from bases in New York and Miami. Earlier this year it was averaging 18 Atlantic crossings a day for the ATC.

Pan American World Airways, excluding Africa-Orient, serves 57 countries and colonies on all continents and over all major ocean routes.

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**PENNSYLVANIA-CENTRAL AIRLINES** was born on April 26, 1927, with the flight of an open-cockpit, single-engine Fairchild plane, carrying a single pouch of mail from Pittsburgh to Cleveland. A year later, the owner of that plane, Clifford Ball, had established regular service for mail and four passengers between the two cities. In 1929, a still more advanced Fairchild model flew from Pittsburgh to Washington in the first scheduled passenger service over the Allegheny Mountains.

In the meantime, C. Bedell Monro and his brother-in-law, Major Frederick R. Crawford, with the assistance of George R. Hahn, a Pittsburgh businessman, organized the Pittsburgh Aviation Industries Corporation which then participated in the formation of Trans-continental and Western Air in September, 1930, and two months later took over control of Pennsylvania Air Lines, to which the Clifford Ball interests had been sold.

At the time, PAL was operating one round trip a day from Washington to Pittsburgh and Cleveland, using four-and six-place single engine planes. By June the following year, a fleet of tri-motored Stinsons was put into service and air mail was added between Pittsburgh and Washington, with schedules being increased to three round trips a day.

In 1934, when all existing air mail contracts in the country had been cancelled by executive order, and new specifications for bidding were announced, PAL lost its Washington-Pittsburgh-Cleveland route to a new company, Central Airlines. There followed a bitter competition between PAL and Central, with both companies purchasing new models, cutting and revising rates and schedules, and losing money, until, in 1936, they merged into the Pennsylvania-Central Airlines.

In 1937, Boeing 247Ds replaced all other equipment, and service was extended from Pittsburgh to Charleston, and from Washington to Buffalo by way of Baltimore, Harrisburg and Williamsport, an air mail contract having been awarded for the latter route. The following year saw the inauguration of a Pittsburgh-Buffalo route and other extension of service from Pittsburgh to Baltimore, both offering only passenger and express service; extension of the Milwaukee-Detroit route from Grand Rapids into Chicago; inauguration of the Detroit-Sault Ste. Marie route via Flint, Saginaw Bay City and Traverse City; the Grand

Rapids-Soo route; and the extension of the main industrial heartland route from Washington to Norfolk.

In 1939, the Boeings were replaced by the DC-3. Since that time, the route from Norfolk through Elizabeth City, Rocky Mount, Raleigh, Greensboro and High Point, Winston-Salem, Hickory and Asheville to Knoxville was opened, and a route from Pittsburgh to Birmingham was started. The first expansion since the outbreak of war came late in 1944, when the Civil Aeronautics Board awarded PCA non-stop routes from Chicago to Detroit, and from Pittsburgh to New York, making possible direct service from New York to Pittsburgh and Birmingham.



**EUROPEAN** commercial aviation presents a rather blurred picture as it is today. However, there are certain bright spots amongst which is to be found Swedish aviation enterprises.

The Swedes are in a very favorable position, aeropolitically speaking. And not only that: technically, they are also on the top and the reason for this is not difficult to find. Ever since Donald Douglas introduced his DC-3, the Swedes have been buying American equipment. They have had people over in America constantly, studying and surveying American commercial aviation. They have been able to combine American efficiency with European service. At a very early stage they foresaw the potential possibilities of commercial aviation.

Animated by a Viking spirit, the Swedes developed a remarkable system of commercial air lines. When the war broke out, they flew to Moscow, Riga, Helsingfors, Oslo, Copenhagen, Berlin, London, Amsterdam, Paris and many other places. Their equipment was mainly American, for most of the airplanes were Douglas DC-3s. They also had a few Junkers JU-52s and a couple of antiquated Fokker F-12s. They cooperated in particular with KLM, and the Swedish-Dutch Scandinavian Air Express was one of the most efficient air services in Europe.

Many of the international services were curtailed throughout World War II, but ABA, Swedish Air Lines, under the leadership of Captain Carl Florman, one of the outstanding personalities in European civil aviation, flew wherever it could during the war. Important domestic lines were started, linking up the frozen North in the neighborhood of the Arctic

Circle with the fertile plains in the South of the country.

A new company, working in close cooperation with ABA and called SILA (Swedish Intercontinental Airlines), was formed in 1942 with the sole objective of intercontinental operations. The Chief of SILA is Per Norlin, one of the leading lights in the International Air Transportation Association and very well known in this country. The company now uses converted 17s, which, although not economical, have been found to be very suitable for the training of transatlantic crews. Douglas DC-4s are expected to be put into operation early in the Spring of 1946. SILA is cooperating very closely with the Danish and Norwegian companies (DDL and DNL), and Mr. Norlin has always been emphasizing the necessity of a good teamwork between the different Scandinavian countries in the field of commercial aviation.



TRANS-CANADA AIR LINES, Canada's national air service, was incorporated by Act of Parliament in April, 1937, with three of its directors nominated by the Government and four by the Canadian National Railway Corporation, which is its sole stockholder.

A few months later, TCA took over an existing airline, and began to operate over a 122-mile route between Vancouver and Seattle. This service was discontinued in 1941. In 1938, TCA began a limited air mail and express service between Montreal and Toronto and Vancouver, and between Lethbridge and Edmonton; in Spring of the following year, regular mail, express and passenger service was initiated between Montreal, Toronto and the Pacific Coast, and the airline extended out to Moncton, which received regular service early in 1940. In the same year, Toronto, London and Windsor were joined by air, and both the transcontinental and the Montreal-Ottawa-Toronto routes received an additional daily flight. Halifax and New York became TCA stops in 1941, Sydney, Nova Scotia and Newfoundland in 1942, and Victoria, British Columbia, in 1943.

In 1943, too, TCA began its Atlantic service, in order to speed mail to and from troops overseas, and to carry war priority freight, and passengers on war business. The Canadian-built *Lancasters* used by the airline on its

ocean route fly between Montreal and Prestwick, Scotland, usually stopping at Newfoundland. However, some of the flights have been nonstop, and TCA holds the record for this route—10 hours and 15 minutes.

TCA, which is headed by H. J. Symington, who is also president of the International Air Transport Association, was one of the first organizations in Canada to put into effect a rehabilitation policy, by employing Air Force personnel who had completed their overseas operation.

To its fleet of *Lodestars* and other Lockheed aircraft, Trans-Canada is now adding 10 Douglas DC-3s. Projected developments for the airline include shortening the cross-Canada line by flying over Lakes Huron and Superior from Toronto to Sault Ste. Marie and Port Arthur and then to Winnipeg; a direct line from Winnipeg to Edmonton by way of Saskatoon; a route from Edmonton to Whitehorse in the Yukon and Fairbanks, Alaska; one from Victoria to Seattle; another from Port Arthur to Duluth; Toronto and Chicago, Toronto and Cleveland, Halifax and Boston are all to be connected by TCA. The Montreal-United Kingdom service will also be expanded.



TRANSCONTINENTAL & WESTERN AIR, INC., was organized October 1, 1930, and 25 days later inaugurated the nation's first all-air coast-to-coast passenger service.

Its beginnings went back several years to earliest airline days. Western Air Express was incorporated July 19, 1925, and flew one of the nation's first airmail routes. On February 3, 1926, Jack Frye and Paul Richter formed the Aero Corporation of California. In June, 1927, Maddux Air Lines was organized in Los Angeles, and on November 26 of the same year Aero Corporation formed Standard Air Lines and began flying from Los Angeles to Phoenix and Tucson.

On July 8, 1929, Transcontinental Air Transport started the nation's first plane-and-train service, New York to Los Angeles. In December of that year it merged with Maddux to become TAT-Maddux. Western Air Express purchased Aero Corporation and its airline on May 1, 1930, and the following October 1, TAT and WAE together organized Transcontinental & Western Air. This original cross-country route of less than 2,700 miles has been expanded through CAB certifications to more than 7,000 miles of airmail routes.

TWA claims to have more "firsts" to its credit than any other airline in the world. The company developed the DC-2 which revolutionized air transport standards in 1934. In 1940 the company introduced the Boeing

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*Stratoliner*, first four-engine transport in coast-to-coast service. The Lockheed *Constellation* likewise was conceived by Jack Frye and Howard Hughes, TWA's principal stockholder. On February 26, 1942, TWA made its first over-ocean flight for the Army Air Transport Command and since then has completed more than 8,000 military ocean crossings. On July 5, 1945, TWA was awarded two important foreign routes, on which it will be able to fly *Constellations*. The new foreign routes add more than 15,000 miles to TWA's lines and extend halfway around the world.

**UNITED AIR LINES**, the oldest coast-to-coast airline operator in the country with a background of 19 years and 300,000,000 miles of flying experience, flies the Main Line airway over the same scenic route blazed by explorers and pioneer settlers of the Overland Trail covered wagon days.

United's route follows U. S. Air Mail Route No. 1—the original transcontinental airway established by the Post Office Department 25 years ago. Today, United's system is 6,700 miles in length, reaches 53 cities in 17 states, the District of Columbia and British Columbia, and serves scores of additional cities and numerous important areas not served by the original New York-San Francisco route.

Like most air carriers, United Air Lines resulted from the consolidation of several smaller airline systems—Varney Air Lines, Pacific Air Transport, and National Air Transport. This consolidation was completed in 1931. Under the guidance of William A. Patterson, who became the company's president in 1934, United has grown steadily as one of the nation's largest domestic air carriers.

Many a "first" has been chalked up by United Air Lines. Some of the nation's first air passengers rode over its route in the box-



like cabins of single-engined Boeing 40's. Another important first was introduction of stewardess service in 1930. United pioneered two-way radio-telephone communication between planes and ground stations, and introduced numerous other technological improvements. In 1943 the company put into operation the first daily transcontinental "flying boxcar" service, with planes specially adapted for exclusive cargo use.

World War II only tended to emphasize the strategic importance of United's route. Heavy essential travel connected with the defense program reached new peaks immediately after Pearl Harbor, and the route continued to have the heaviest priority traffic of any in the country.

While helping to speed the war program through operation of its regular commercial flights, United also undertook many direct military tasks, modifying 5,736 four-engined bombers at Cheyenne, training military flight and ground personnel, and operating extensive transpacific and other military routes under contract with the Air Transport Command. In its Pacific operations, United crews flew four-engined Douglas C-54's on daily schedules from California to Honolulu and Guam.

## Idlewild . . . Answer to Doubting Thomas

(Continued from page 42)

it has, at least, attained its majority, and must expect from this point forward to pay its own way.

The Board of Estimate of New York City has undertaken, during a period of wartime handicaps and distractions, but with a firm faith in the future of our country and in the future of air commerce, to create the world's greatest airport. It is no exaggeration to suggest that the future of this city as a place of commerce is wrapped up in the future of this bold venture. Our commercial position has been the foundation of New York's leadership in many fields. Had this opportunity—

and necessity—not been clearly seen and firmly grasped, that commercial position might easily have been forfeited. There have been those elsewhere in the land, and a few here at home, who have been all too ready to believe that New York City had no future. This is a part—only a part—of the answer to the timid, the unimaginative and the Doubting Thomases. There is a vast opportunity in the new and better world ahead. We are determined that in the field of aviation, as in other fields of commerce, New York City shall lead the way.

# IT'S AN WORLD

REG. U. S. PAT. OFF.

By L. A. GOLDSMITH, *Economic Analyst, AIR TRANSPORTATION*

AND now comes the Air Tour Overseas Cruise. In postwar terminology, this is designated as an "escorted air tour," but in prewar language it was just "personally conducted." The American Express Company launches this innovation in Overseas Air Travel with a 45-day Circle

## **A New First!—Personally Conducted Overseas Air Tour Cruise Leaving Los Angeles Early in January 1946**

valuable adjunct *time* will no doubt wish to indulge in what would seem to be a glamorous "magic carpet" trip. From a practical standpoint, however, for our future foreign trade with the Latin American countries, or any other foreign country for that matter, those travel dollars of ours when spent abroad translate themselves very rapidly into *purchases for our own goods and services*. Therefore every foreign trader should hail with enthusiasm this new first in travel cruises—the "escorted" Air Tour Cruise.

Referring specifically to the 45-day Circle Tour of Latin America it will be launched with a Pan American World Airways *Clipper* from Los Angeles on January 8, 1946. The first stops on this tour will be in Mexico and Guatemala. From there the flight continues down the west coast of South America. The passengers will cross the Southern Continent from Santiago to Buenos Aires by train, automobile, and steamer, including side trips to the Chilean Lake District. From Buenos Aires the group will fly northwards via Rio de Janeiro, Havana and other places of interest. The cruise will be completed with arrival in Los Angeles on February 21.

Further air travel cruises are announced by Mr. Ralph T. Reed, president of the American Express Company, just as soon as airlines combine the new lowered rates with sufficient planes. According to Mr. Reed, they will offer for next Summer's vacation plans, a two-week all-expense

European Capital air tour from New York, with stops in London, Paris, Brussels, Amsterdam and Berne. Transatlantic flying time of approximately 18 hours from New York will permit from one to three days in each capital, Mr. Reed says. The price definitely includes hotel rooms, meals and sightseeing. Tours will not only start from New York but also from the co-terminals of Boston, Philadelphia, Washington, Detroit, and Chicago. In the opinion of the American Express Company, flights from these cities will mean very little additional flying time and will increase the all-inclusive price only slightly.

If the prospective air tour passenger has 22 days at his command, the company offers a European tour which will add Nice, Rome, Venice, Milan and Naples to the itinerary. The Pacific has not been forgotten in future air cruises. As soon as planes, recreational facilities and hotel accommodations are available in Honolulu, American Express will inaugurate a two-week all-expense air tour to that neck of the Pacific. A more general Pacific air tour is also being planned; this will take a month longer, offering flights via the Aleutians to Tokio, and on to Shanghai, Hongkong and Manila, returning via Guam and Honolulu. Specially arranged side trips to some of those island territories which have become war shrines are also possible.

A VERY interesting factor in air-travel-for-pleasure is the extreme changes in climate which the passengers on long air cruises are likely to encounter. Men, of course, can take with them regulation tropical worsteds and Palm Beach suits for tropical and sub-tropical conditions.



Airborne Costume

Women, however, need variations of dress; not only as to weight, but in style and appropriateness for the occasion. In air travel the quantity of luggage is of necessity limited. SO what to do about this if you are a "female of the species" and take off in a freezing climate, land in Springtime a few hours later, and then by the next day, perhaps, confront the sweltering heat of the tropics?

American dress designers have met this problem with foresight and ingenuity. One designer in particular, Vera Maxwell of New York City, tells me that she only designs her women's coats and suits with the thought of possible air travel in mind! A frequent air traveler herself, she has discovered that a woman unprepared for rapid changes of climate is apt to be extremely uncomfortable. So, Vera Maxwell worked out for her air travel clientele what might be called a three-layer costume suitable for any woman's all-purpose air travel for day wear.

The lady air traveler can take off on a blustery Winter's day in her complete three-in-one costume, throwing off the top coat as she reaches Mexico or its geographical equivalent. She is then trimly and smartly attired in a navy blue coat-dress—the second "layer." If she flies farther south into the

heavy heat of the tropics, all she will have to do is to unbutton the coat-dress and step forth completely clothed in a "Summery print dress, looking and feeling as cool as a tall, tinkling iced drink. This last transformation completes the climatic costume changes. In fact with the addition of a small overnight case containing perhaps a dinner or evening dress with accessories, our lady traveler would be equipped for any and every occasion without the burden of other baggage to look after.

TRYING right in with the added fillip to pleasure travel, as indicated by the air tour cruises future, is the new attitude of the life insurance companies toward air travel. Today, the majority of these companies have apparently decided that air travel has come of age and need

no longer be considered as an "infant industry" which requires undue protection during the stage of its growing pains.

A survey very recently made by the Institute of Life Insurance reveals that world-wide airline passenger travel *without limitation* is now regarded as standard risk in the issuance of new life insurance policies by about one-half of the 100 life

insurance companies included in the survey. The companies covered in this survey represent more than 70 percent of the total life insurance in force in this country.

Sixty percent of these companies made no limitation at all on global travel, while about 10 percent consider that 50,000 miles annually should be considered as standard risk. In an almost startling contrast for comparison purposes, no companies accepted *unlimited* transoceanic air travel as a totally standard risk prior to World War II. Only 10 percent of the companies accepted limited world air travel on a standard basis, while almost a third of the companies declined outright, those applicants who planned to make such passenger flights. Others issue policies specifically excluding the "hazard" of ocean flying.

This means that the extraordinary flying records made during the war, in which world flights figured in every-day 'round-the-clock routine, has caused the life insurance companies to change their attitude completely as regards flying as a risk. Today, even pilots and crew members in regular transoceanic services, can secure life insurance for an extra premium with all but 15 percent of the companies. A change indeed—and *all to the good!*

## LEGAL NOTES

### on Air Transportation



By GEORGE BOOCHEVER

*Chairman, Legal Committee, Aviation Section, New York Board of Trade*

With the growth of air transportation there is bound to be a great increase in situations giving rise to claims for injury to persons and property, that is to say, for torts, to use the legal term, as the result of the negligent operation of planes. The annual report of the Civil Aeronautics Board for 1943 states that, "although accidents in civilian aviation decreased from 5,526 for the fiscal year 1941 to 4,493 for the fiscal year 1942, the fiscal year 1943 showed an increase over both years, with 5,715 accidents being reported." A brief glance at the legal principles applicable to such situations may therefore be of interest.

The Uniform State Law for Aeronautics, Section 6, provides that the rules of law applicable to torts on land shall determine the liability of the owner of one aircraft to the owner of another or to pilots or passengers on either aircraft, for damage caused, by collision on land or in the air.

In a case decided by the Supreme Court of Wisconsin, *Greunke v. North American Airways* (201 Wis. 565, 569), after calling attention to the fact that 13 states, including Wisconsin, had adopted the said uniform law, the court stated that:

*"The statute is merely declaratory of common-law principles. The rule of the common law is that every person shall use ordinary care not to injure another. Ordinary care is held to be such care as the great mass of mankind would use under the same or similar circumstances, or such care as the ordinarily prudent person would use under the same or similar circumstances."*

A Massachusetts case, *Wilson v. Colonial Air Transport* (180 N.E. 212, 214) may be cited, to the same effect. The court said:

*"The rules of law relating to the operation of aircraft, in the absence of statute, in general, are rules relating to negligence and nuisance, and are not distinguishable from those which relate to the operation of vehicles, perhaps, more closely to motor vehicles on land. In this commonwealth, at present, there is no statute specifically applicable to this issue of negligence in the operation of air-*

*craft, and the ordinary rules of negligence and due care obtain."*

These principles were upheld in a leading New York case, *Read v. New York City Airport, Inc.* (145 Misc. 294). In that case, suit was brought for damages arising from a collision on defendant's airport, between an airplane owned by plaintiff's intestate and a truck owned by another defendant. The plane was driven by a licensed pilot and while taxiing down the runway, collided against the truck, sustaining damage to its propeller and left lower wing.

The evidence showed that several airplanes were parked in front of their respective hangars and that the pilot intended to taxi around them so as to reach the gas tank about 145 yards south of the hangar. Although he testified that he looked from both sides of the cockpit to make sure he would not hit anything, as he came down the taxi runway, he admitted, on cross-examination, that if he had gone out and walked past the tails of the parked planes he could have seen the truck. The court stated:

*"A search of the reported authorities failed to reveal any case in this State involving a collision between aeroplanes, or an aeroplane and a land vehicle. There is no statute in this State controlling the operation and management of aeroplanes. It seems, however, that the rules of law applicable to torts generally govern in this type of case."*

After citing an Appellate Division case, *Seaman v. Curtiss Flying Service, Inc.* (231 App. Div. 867), as "an illustration of the application of such common-law rules," and after referring to the Wisconsin and Massachusetts cases, above mentioned, the court decided, on the merits, for the defendants, saying:

*"Applying, then, the ordinary rules of law to the facts at bar, the court finds, upon the whole case, that the pilot did not operate the aeroplane in a careful and prudent manner. The fact that he had the right of way to proceed down the runway did not, however, excuse him from the duty of alertness and doing what he reasonably could to avoid a crisis."*

After referring to the question raised as to defendant's duty to keep the runway free from obstructions, the court said:

*"But even if a case of negligence on the part of the defendants or either of them, could be made out, upon the evidence, I am satisfied that the pilot failed to exercise reasonable care and vigilance, under the circumstances, and that this precludes recovery by plaintiff, upon the ground of contributory negligence."*

In short, the common-law rules as to actions for negligence, including the requirement of freedom from contributory negligence on plaintiff's part, as a condition precedent to recovery, apply to airplane cases in the same way as to automobile or other accidents.

negligence

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(Reg. U. S. Pat. Off.)

## AMERICAN

A total of 79,179,091 passenger miles was flown by American Airlines in October, an increase of 31.7 percent over the 60,108,964 passenger-miles flown in October, 1944. Charles A. Rheinstrom, vice president-traffic, announced. The figures do not include the overseas operations of the company. The October, 1945, total represents a 9.5 percent increase over the 72,333,865 passenger-miles flown in September.

American carried 153,842 passengers in October, six percent greater than the September figure of 145,098, and 28 percent more than the 120,324 passengers carried in October, 1944.

Mail pound-miles flown two months ago totaled 2,017,639,656, which was 3.4 percent less than the October, 1944, total of 2,088,027,951 mail pound-miles, and 8.5 percent under the 2,204,391,033 of September, 1945.

A 904 percent increase over the 61,969,415 air freight pound-miles flown in October, 1944, was carried in October, 1945, for a net of 622,153,920 pound-miles. This total is 11.8 percent below September's total of 705,170,649 air freight pound-miles.

## BRANIFF

The planes of Braniff Airways carried 108,940 passengers in the third quarter of 1945, as compared with 74,189 in the same period during the prior year, an increase of 46.84 percent. T. E. Braniff, president, announced.

According to the figures, an average of 18.48 passengers per mile were carried for a total of 41,845,158 passenger-miles, as compared with 28,234,873 passenger miles during the same period in 1944, an increase of 48.20 per cent. Revenue from all sources was \$2,337,646.00, an increase of 27.78 percent over the third quarter of 1944, while the net profit of \$376,547.00 exceeded the third quarter in the prior year by \$56,746.00.

During the quarter, the report reveals that 531,536 pounds of express were flown 236,994,067 express pound-miles, representing an increase of 35.91 percent over the same quarter in 1944.

The decreasing importance of mail revenue is demonstrated by the fact that such income accounted for only 6.05 percent of the company's total income.

## CHICAGO & SOUTHERN

C. & S. flew 76 percent more revenue passenger-miles during the first 11 months of 1945 than it did for the same period of 1944. This involved carrying 86 percent more revenue passengers during the same period of time.

For the month of November, 1945, alone, there was an increase of 79.08 percent in the number of revenue passengers carried as compared with November, 1944. This is the result of carrying 20,740 passengers in November, 1945, as compared with 11,582 passengers in November, 1944. Revenue passenger-miles for November, 1945, were 9,095,400 as compared with 5,538,455 for November, 1944.

## CONTINENTAL

Passenger traffic over Continental Air Lines during October was the heaviest ever recorded for that month by the airline, according to Donald A. Duff, general traffic and sales manager.

Revenue-passenger miles flown by the airline in the 31-day period totaled 5,598,601 miles. This represents an increase of 125 percent over October, 1944, during which month the airline flew 2,487,443 revenue passenger miles. Both mail and express also showed increases. Airmail was up 14 percent over October of the preceding year, and express was up 10 percent.

## EASTERN

The net profit of Eastern Air Lines, Inc., for the first nine months of 1945 increased 91 percent compared with the like period of 1944, Captain Eddie Rickenbacker, president and general manager, reported late last month. After providing \$4,916,000 for federal income and excess profits taxes, Eastern had a net profit of \$1,375,164.27, or \$2.30 per share. These earnings compare with the net profit of \$721,684.21 or \$1.21 per share in the first nine months of 1944.

Operating revenues of the company increased 49 percent to \$19,147,816.55, and operating expenses increased by \$3,688,608.96 or 39 percent. Revenue miles flown by the company's planes increased to 62 percent to a nine months total of 19,581,898 revenue miles. During the first nine months covered by this report EAL's planes carried 637,034 revenue passengers, an increase of 308,792—or almost double the figure for the same period in 1944—and 331,925,799 revenue passenger miles were flown compared with 184,268,999, an increase of 80 percent.

Concurrently with the issuing of the above nine months statement, Captain Rickenbacker announced that during the month of October, 1945, approximately 91,460 revenue passengers were carried 45,930,000 passenger miles. Compared to October, 1944, the company flew 50 percent more revenue miles, 60 percent more revenue passenger-miles, and passenger revenue increased 41 percent.

## NORTHWEST

Northwest Airlines air mail and express loads took another jump during October, with pound-miles also on the increase, Croil Hunter, president and general manager, reported. He said Northwest planes hauled 521,074 pounds of mail in October, exceeding the previous month's mark by 15,000 pounds. These loads were carried a total of 490,261,314 pound-miles, more than 20,000,000 above the September total. Express loads increased from 159,000 pounds in September, to 186,770 in October. Express pound-miles were up last month to 115,564,005.

## PENNSYLVANIA-CENTRAL

October operating revenues of PCA amounted to \$1,065,326, representing an increase of approximately \$45,000 over the month of September, it was reported by R. G. Lochiel, vice-president and treasurer. October marked the fourth consecutive month that PCA operating revenues topped the

(Continued on Page 70)



(Trade Mark)

In 1946, Dallas will resume its annual aircraft show on an international scale, under the sponsorship of the city's Chamber of Commerce. March 1 to 5 inclusive is the period set for the post-victory public exhibition of aircraft and accessories, the first to be held under the name of the Pan-American Aircraft Exposition.

National Fly-Yourself System, Inc., which will provide a nation-wide network of bases offering airplane rental and charter service with both two- and five-place planes of standardized design, has opened offices in the Woolworth Building, at 233 Broadway, New York City.

Northwest Airlines has asked governmental authority to return its employees to a 40-hour work week, with take-home pay equivalent to that of the 48-hour week in effect since early in the war.

Now that the war is over, the Miami All-American Air Maneuvers show will be resumed on January 4th, 5th and 6th, and will feature an exhibit of manufacturers and dealers.

British Overseas Airways Corporation's permit, providing for transportation to the United States over the North Atlantic route from Great Britain, has been amended by the Civil Aeronautics Board, with President Truman's approval, to authorize BOAC to conduct operations, during the winter months, from the United Kingdom to Baltimore via Lisbon, points in West Africa, Trinidad, and Bermuda.

Woodley Airways, operating in Alaska since 1931, has purchased three new Douglas DC-3 transports for its scheduled service in this area.

The *Air Express Shipping Estimator*, recently issued by Railway Express Agency, shows at a glance the Air Express charges for shipments of any weight moving for any specified distance in air miles, and has on the back a condensed map of airline routes between principal airport cities in the United States. Copies may be obtained without cost upon request.

The Paitilla National Airport, which had been used as a defense bastion and a training site for the United States and Latin American countries, has been returned by the United States Army to the complete control of Panama.

Air Associates, Inc., Teterboro, New Jersey, is opening a new branch office and warehouse in Atlanta, in order to reach aviation manufacturers and airports in Georgia, Tennessee, Mississippi, Alabama and Florida within 24 hours.

Centralization of all passenger service of Mid-Continent Airlines in a new division to be known as the Passenger Service Division, and appointment of Verne C. Milligan as superintendent of passenger service, has been announced by J. A. Cunningham, Vice President-Operations. The new division will include hostesses, food service and all other services essential to passenger comfort.

A civil air transport agreement reached by the United States and Norway provides that American planes will be allowed to operate between points in this country and Oslo or Stravanger and points beyond; that Norwegian planes will be allowed to operate between Norwegian airports and New York or Chicago.

Articles weighing one pound or less may be sent by air to Vatican City, the rate being 30 cents a half-ounce, according to an announcement by the Post Office.

Perfection of a parachute capable of landing freight weighing up to 10,000 pounds, is one of the aims of the recently formed Burton Distributing Company, Inc. The firm will specialize in engineering research and development in the aircraft and radio fields, and will distribute such equipment for manufacturers.

Leech Aircraft, Inc., distributors of Stinson Airplanes, have announced the opening of their offices in the Graybar Building, 420 Lexington Avenue, New York City.

Curtiss-Wright Corporation and Eastern Air Lines have mutually agreed to cancel the airlines' order for the Curtiss CW-20E transports, which Eastern planned to place in service early next year. This decision was based on the fact that the almost immediate availability from the Government of such surplus transport planes as the Curtiss C-46, Douglas C-47 and C-54, and the terms at which they are offered, make it convenient for the airlines to purchase or lease this equipment for their comparatively short-haul operations, pending the production of more advanced models two years hence.

Six "iron lungs" have been flown by special plane to Brussels, Belgium, to save the lives of Belgian civilians stricken by infantile paralysis, according to a report by the Belgian Economic Commission.

A new air marker system, which gives an air pilot or observer his location within less than a mile, will be promoted throughout the 21 American republics by the Inter-American Escadrille, an organization of civilian flying clubs with chapters in each of the American republics. The new system has been approved by all nations represented at the International Civil Aviation Conference at Chicago, and is being put into effect in this country by the CAA.

Manufacture of a controllable pitch propeller for use as an integral feature of postwar aircraft has been started by Beech Aircraft Corporation. Two years of research by the Army Air Forces precipitated the development of the R-000 type propeller which was used extensively on the L-4J Liaison (grasshopper) planes, showing an increase in rate of climb and decrease in take-off time of from 15 to 26 percent. Another larger type, the R-200, tested on the Grumman Widgeon, P-19 and other planes, shows reduction of take-off time from the water by 47.25 percent and reduction of ground run requirement by 30.5 percent.

The possibility of offering "day coach" service in order to compete with coach service offered by the railroads is now being studied by the airlines. Pennsylvania Central Airlines is considering the adoption of two-rate service. Coach-type service would be offered on high traffic density routes, and would be nonreservable with planes leaving every hour on the hour. The seating arrangement would be more compact, thus providing a greater payload. American Airlines is offering an experimental service of this type between New York and Boston. The plane used in these flights has been re-equipped to carry 28 passengers instead of 21 as formerly.



## EXECUTIVE

**ALLAN F. BONNALIE**, named president and general manager of Lineas Aereas Mexicanas, S. S. (LAMSA), Mexican subsidiary of United Air Lines. A veteran of both World Wars, Bonnalie recently returned to commercial aviation after having served as a commander in the Navy's Bureau of Aeronautics at Washington.

**LIEUTENANT COMMANDER H. GILBERT SMITH, USNR**, just released from active duty, elected to the post of vice president in charge of traffic of Expresso Aereo Interamericano, S. A. Before entering the service, Smith was vice president and treasurer of the W. Harry Agencies, Inc., which represented Seatrain Lines, Inc., United States Lines, and other American flag services in Cuba. While in the Navy he was Gulf Sea Frontier branch shipping control officer for the East coast of Mexico. He also was liaison officer between the Commander of the Gulf Sea Frontier and the Commander of the Mexican Military Region, and in a similar capacity to the Director General of the Mexican Fleet.

**LIEUTENANT COMMANDER JAMES H. SMITH, JR.**, elected assistant vice president of Pan American Airways, with headquarters in New York. Before entering the Navy as a carrier-based torpedo pilot in February, 1943, he had been associated with PAA since 1936 when he joined the company as assistant to Vice President John C. Cooper. Smith participated in actions at Tarawa, Wake, Makin, Kwajalein, Saipan, Tinian, Guam, Palau, Leyte, Formosa, China Coast, Iwo Jima, Tokyo, and Okinawa.

**ROBERT L. CUMMINGS**, appointed manager of Pan American's Atlantic Division.

He became associated with PAA early in 1941. Later, as assistant to Vice President Samuel F. Pryor, he became manager of a secret war project for the United States Government. Mr. Cummings is a graduate of Harvard.

**GEORGE E. WARDMAN** and **PAUL M. STRIEFFLER**, named respectively assistant and administrative assistant to Robert L. Cummings. Wardman has served as traffic representative in Bermuda, airport traffic manager at Foyles, Eire, and assistant to the division traffic manager at LaGuardia Field. Before joining the airline, Strieffler was a partner in Riter and Company, New York investment bankers, and associated with the banking firm of Dillon Read and Company.

**COLONEL SILAS R. RICHARDS**, **COLONEL LEONARD M. ROSE**, and **C. E. LAWTON**, now occupying the respective TACA Airways posts of vice president in charge of operations, assistant to the chairman of the board, and assistant treasurer. Richards, who was awarded the Legion of Merit for his part in directing the airborne invasion of France, will have general supervision of all international flights between Miami, Havana, Central America, Mexico, and Panama, and between Miami and Rio de Janeiro as well as national services within Central America, Colombia, Venezuela, and Brazil. Rose has a background of 18 years' experience in various fields of transportation in Latin America. He was for 10 years in Mexico with the Southern Pacific Railroad and also with the International Railroad of Central America in Guatemala. Until his release from the Army, he was Chief of Transportation, Base Section, embracing the territory within India and Ceylon. Lawton previously was secretary-treasurer of the Trenton Mortgage and Title Guarantee Company and later head of the Internal Audit Division of Weston Electrical Instrument Corporation.

**RICHARD C. PALMER**, appointed special assistant to the president of Fairchild Engine and Airplane Corporation. A native of Cleveland, Palmer is vice president of the National Aeronautic Association in charge of its air defense council. For the past year he has been general manager of the National Aircraft War Production Council.



Left to right—Allan F. Bonnalie, Lieut. Cmdr. H. Gilbert Smith, Lieut. Cmdr. James H. Smith, Jr., Robert L. Cummings, Col. Silas R. Richards, and Col. Leonard M. Rose.



Left to right—Richard C. Palmer, Colonel Frederick G. Betts, Capt. John Ringer, George R. Cushing, Allan C. Botsford, and Harold A. Olsen.

**CAPTAIN WALTER A. HAMILTON, COLONEL FREDERICK G. BETTS, and ROBERT E. LEES**, now, in the order named, special assistant to TWA's executive vice president, executive assistant to the senior vice president, and executive assistant to the managing director of the International Division. Hamilton, who has been a pilot for two decades, helped Jack Frye and Paul E. Richter in the formation of the Aero Corporation California, a predecessor company of TWA. He was called to duty with the Navy Bureau of Aeronautics soon after Pearl Harbor. Betts, who served 38 months overseas, was chief of staff of the Eighth Fighter Command. With TWA and its predecessor companies since 1928, he served as director of the Purchasing and Stores Division for a number of years. Prior to his call to active duty, he had been assigned to the airline's International Division. Lees has been associated with TWA since April, 1943. Previous to that time he was chief of the aircraft branch of the War Production Board.

**CAPTAIN JOHN RINGER**, chief pilot for Air Cargo Transport, elected vice president of flight. He will also continue his duties as chief pilot of the line. Ringer joined ACT in August, coming from Colonial Airlines.

**COLONEL LUTHER HARRIS**, returned to PCA as vice president in charge of engineering and maintenance after serving four years with the Army Air Forces. He is one of the key men responsible for establishing the famed Fireball Route, longest airline in the world which flew high-priority materials from mid-America to India.

**GEORGE R. CUSHING**, elected to the newly created position of vice president of operations of Delta Air Lines. A veteran pilot, he is credited with having flown more than 1,500,000 miles in almost every type of plane. He joined Delta as a pilot in 1935, became chief pilot two years later, and operations manager in 1940.

**COLONEL ROBERT J. SMITH**, back again with Braniff Airways as a vice president to head the company's expansion and route development program. He was responsible for setting up the Brownsville-Canal Zone

ATC operation for Braniff, after which he joined the Army Air Forces to negotiate similar contracts for the Government with other commercial airlines. He was transferred to foreign duty in the fall of 1943.

**JOHN C. EMERY**, formerly commander in the United States Naval Reserve, returned to the Railway Express Agency to assume the post of executive assistant on the president's staff. He was executive officer of the Transportation Division, Bureau of Supplies and Accounts in the Navy Department, and in that post helped to develop the Navy air cargo system. Emery became associated with REA in 1937.

**WALTON D. LYNCH**, vice president of the National Folding Box Company, and **MAJOR ALBIN DEARING**, the former re-elected president of the Packaging Institute and the latter appointed executive head of the same organization.

**COLONEL JESS B. BENNETT**, former sales executive for the Curtis Publishing Company, named director of research and planning after five years of active military duty. His department will encompass research and planning into every phase of airline operation.

## CARGO

**ALLAN C. BOTSFORD**, appointed to American Airlines' newly created post of supervisor of passenger and cargo facilities. He will make his headquarters at LaGuardia Field where he will make analytical studies in cooperation with AA's engineering department in the development of special equipment for cargo and passenger use.

**HOWARD SHAW**, formerly in the truck transportation business, now with Delta Air Lines as assistant to the cargo and mail traffic manager.

**CARL A. FINKBEINER, JOHN A. LUNDMARK, and STAN FAVOUR**, named staff assistants in the Kansas City Cargo Sales Department of TWA. Finkbeiner will work as liaison for cargo sales with engineering in developing loading equipment, interior plane design, special freight contain-

ers, etc. Lundmark is a freight and classification expert, having 10 years' experience with the Rock Island Railroad. Favour, formerly traffic supervisor for Consolidated Aircraft, has a broad background in freight consolidation and freight forwarding.

## TRAFFIC

**HAROLD A. OLSEN**, promoted to general traffic manager of Pennsylvania-Central. Associated with the airline since 1941, he served as Detroit district traffic manager and assistant to the vice-president, and later as western divisional traffic manager.

**MORGAN T. BELLAH** and **WILLIAM T. KELLER**, elevated by PCA to the respective posts of regional manager at the Greensboro-High Point terminal and district traffic manager in Rochester. Bellah joined PCA two years ago after having been in the Air Express Division of Railway Express for nearly 10 years. Formerly PCA traffic manager in New York, Keller previously was associated with American, Colonial, and TWA.

**THOMAS J. EPPLEY**, who has become associated with Trans-Caribbean Airlines as general traffic manager. A graduate of the Wharton School, University of Pennsylvania, he was employed as commercial agent for the Railway Express Agency. He also studied air transportation at New York University.

**CHARLES A. TEHAN** and **JOHN M. LYONS**, advanced by Captain Eddie Rickenbacker to the positions of division manager of Eastern Air Lines' newly created Detroit-to-Roanoke division, and district traffic manager for the New England district. Tehan was formerly New England district traffic manager. Lyons comes from the company's Research and Planning Department.

**LUTHER L. KELLOGG**, named assistant to the regional traffic manager for the TACA airlines in Central America, Mexico, Cuba, and Panama. He formerly was assistant general traffic manager of Air Cargo Transport and Hudson Airlines. Kellogg has also held positions with Pan American and Eastern.

**WILLIAM A. GLASSFORD**, back again with United Air Lines as district traffic manager at San Diego. He has seen more than three years' service in the Navy.

**LIEUTENANT COLONEL JOSEPH W. LETZKUS**, district traffic manager for TWA at Kansas City before entering the armed forces in 1942, returned to the airline as transportation manager of the Midwest region. He first joined TWA in 1938 as traffic representative.

**RICHARD A. HOLMAN**, traffic manager at Baltimore for American Airlines, and **JOSEPH E. TERRY**, assistant to the general traffic manager, appointed respectively personnel administration manager-traffic and district agency-international manager for the New York area. Holman has been with AA since 1941 and Terry since 1940.

**MAJOR JOHN G. MAXWELL**, appointed traffic manager for Trans-Canada Air Lines at Winnipeg. Maxwell has just returned from overseas after four years of service with the Canadian Army.

**MORRIS BAKKEN, JR.**, and **R. D. MURPHY**, named traffic representatives for Northwest Airlines in its New York office.

## ADVERTISING-PUBLIC RELATIONS

**WILLIAM MOSCRIP MILLER**, appointed director of advertising and publicity for Air Cargo Transport. He goes to this position from the War Advertising Council with which he was associated since his return as a war correspondent from the China-Burma-India theater. Prior to the war Miller was in charge of magazine and feature publicity for NBC, leaving three years ago to serve as a correspondent with the Psychological Warfare Branch of the United States Army in Algiers. His assignment to CBI for a national magazine followed.

**JAMES W. EBEN**, named director of advertising and publicity for United Aircraft Products, Inc. A graduate of Princeton University, he was employed by *The Newark Evening News* as a sports columnist, auto editor, and a member of the city and radio staffs. He served as a captain with the Marines.



Left to right—Thomas J. Eppley, Charles A. Tehan, John M. Lyons, William Moscrip Miller, Thomas J. Deegan, Jr., and Charles B. Taxier.

**THOMAS J. DEEGAN, JR.**, director of public information for American Airlines, now a vice president of the advertising firm of Abbott Kimball Company, Inc. Before coming to American, Deegan was for 15 years in the newspaper and public relations fields, having served eight years on the staff of *The New York Times*, followed by the establishment of his own public relations firm.

**WILLIAM C. SPEIDEL, JR.**, Seattle newspaperman and columnist, who has joined the publicity staff of Northwest Airlines. He will serve as Western region representative.

**R. B. STEVENSON**, transferred from Miami to Panagra's New York office, where he will assist General Traffic Manager Christopher de Groot in the handling of advertising and publicity.

**ROYAL & DE GUZMAN**, 452 Fifth Avenue, New York, appointed advertising counsel for TACA Airways Agency.

## SALES

**SHELBY W. MERRILL**, named passenger sales manager for TACA. Before joining the Army Air Forces, he was associated with TWA as Midwestern air express manager and American in the passenger sales department.

**MAJOR J. KEITH DAVIS**, appointed sales manager of the Airplane Sales Division of Robinson Aviation. Prior to entering the service in 1942, he was vice president and sales manager of Intercity Aviation.

**T. E. OAKES**, now senior staff assistant in charge of contract sales for TWA. He was with the Air Transport Command until recently, assigning and staging crews who carried passengers and cargo and evacuated wounded in the Pacific area.

**CHARLES B. TAXIER**, formerly with Northeast Airlines as assistant district traffic manager in the New York area, now on the sales staff of Magnus, Mabee & Reynard, Inc. He served in the Southwest Pacific with the Fifth Air Force.

## TWA Constellation Breaks Washington-Paris Record

Arriving in Paris on December 4 after a flight from Washington, TWA's new *Constellation*, *Paris Sky Chief*, broke all Atlantic speed records for non-military aircraft. Flying time of the big plane was two minutes under 13 hours, averaging 296 miles per hour; overall time, including stops at Gander, Newfoundland, and Shannon Airport, Ireland, was 14 hours and 48 minutes. TWA reported that the *Paris Sky Chief*'s time to the French capital was one hour and 52 minutes faster than the schedule set for the ship.

## Mail Order by Air?

(Continued from Page 24)

solidation of small shipments into larger units that may be handled more economically.

3. Airport-to-airport rates should be published, as many customers can, in our opinion, provide their own pick-up and delivery service at a cost below that necessary for airlines to charge for this service.

Packing requirements should be adjusted to meet the specific conditions existing in air transport.

The development of passenger business by the airlines has proven their ability to provide a superior service in this field at a cost competitive with other forms of transportation. The shipping public, including the mail order industry, is ready to patronize an efficient air freight service.

## Air Commerce

(Continued from Page 65)

million-dollar mark. Mr. Lochiel explained that October was the first full month of experience with the system-wide passenger fare of 4.5 cents per mile. The effect of the fare reduction was partially offset by an 11 percent increase over September in the number of passengers carried per mile.

PCA's revenues for the first 10 months of 1945 totaled \$9,268,944, as compared with \$5,055,818 in the same period of 1944. Net income for this period amounted to \$820,210, after taxes and fixed charges on the corporation's recently issued 3½ percent 15-year convertible income debentures, or \$1.72 per share. In the same period of 1944, net income was \$427,045 after taxes, or 90 cents per share.

This year PCA has carried 689,881 passengers, compared with 350,304 for the first 10 months of last year. The airline flew 9,165,164 revenue plane miles and 155,957,211 passenger-miles through October. This compares with 4,204,280 revenue plane miles and 73,202,517 revenue passenger miles in the same period of 1944.

## TWA

TWA operated 2,828,027 revenue passenger miles in September, an increase of 35.6 percent over the same month of 1944, according to an announcement by E. O. Cocke, the airline's vice president of traffic. Air mail showed even a greater increase. During the month, 3,849,142 pounds of mail were carried, or 56.5 percent more than the mail total for September a year ago. Express shipments were 574,013 pounds, a gain of 31.1 per cent over the corresponding month of 1944.

## UNITED

Reflecting increased operations to meet heavy air travel demands, two new all-time traffic records were set by United Air Lines in October, according to Harold Crary, vice president-traffic. The company's revenue passenger-miles totaled 61,816,500, a gain of 37 percent over the corresponding month of 1944. Revenue airplane miles increased 34 percent to 3,901,180 for October.

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